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<u>Document 10 – Part 1</u>

Expert Report of Konrad J. Banaszak, Genesis Engineering & Development, dated 11/13/2014

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS,
WESTERN DIVISION

LAJIM, LLC, an Illinois Limited Liability Corporation, Prairie Ridge Golf Course, LLC, an Illinois Limited Liability Company, Lowell Beggs, and Martha Kai Conway,	)	
Plaintiffs,	)	Case No. 13-cv-50348
v.	)	Senior Judge Philip Reinhard Magistrate Judge Iain D. Johnson
General Electric Company, a New York Corporation,	)	
Defendant.	)	

EXPERT REPORT

OF

KONRAD J. BANASZAK, PH.D.

NOVEMBER 13, 2014

GE&R
GENESIS ENGINEERING & REDEVELOPMENT

Genesis Engineering & Redevelopment
2149 Oxnard Drive
Downers Grove, IL 60516

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QUALIFICATIONS

I am Konrad J. Banaszak, Ph.D., Chief Scientist at Genesis Engineering & Redevelopment, Inc. ("GER"). I am a Licensed Professional Geologist in the State of Illinois. My resume giving the particulars of my employment history, academic history, organizational memberships, and certifications and licenses is in Appendix A. My publication list is in Appendix B.

GER charges $250 per hour for my work with no differentiation for testimony time. Through the end of October 2014, GER has billed $32,897.15 in relation to this case.

I have worked in the geosciences for the entirety of my 43 year full-time career. I have worked in academia, for government agencies, and for private environmental consulting firms. I have experience in hydrogeology, geochemistry, and contamination sites. I have worked on chlorinated solvent matters since my first job with the United States government. My work experience has included investigation, fate and transport analysis, and remediation of chlorinated solvents, and has occurred across the United States. My work has been in several different contexts, including related to the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), the Resource Conservation Recovery Act ("RCRA"), state cleanup programs, property transfers, and private cleanups.

I have testified about technical issues related to chlorinated solvents. In the last four years, I served as an expert witness in one environmental case: City of Indianapolis v. Ertel Manufacturing, et al., Cause No. 49D07-0807-PL-033638, in the Marion Superior Court, (Marion County, Indiana) Civil Division No. 7. I have served as an expert witness in other environmental litigation that occurred more than 4 years ago.

INFORMATION CONSIDERED

My opinions below relate to environmental contamination at and downgradient from the former General Electric Company ("GE") Plant at 709 Wall Street in Morrison, Illinois. To form my opinions, I have considered numerous environmental regulatory documents associated with the GE Plant. The documents that I considered include (i) copies of the reports, data, correspondence and other similar materials contained in the files of the Illinois Environmental Protection Agency ("IEPA") (produced by the IEPA in response to a Freedom of Information Act request submitted in April of 2013 by the Plaintiffs' attorneys), (ii) copies of subsequent reports, data and correspondence sent to and received from the IEPA which were provided to Plaintiffs' attorneys directly by GE and its representatives pursuant to an access agreement between GE and the owner of the Prairie Ridge Golf Course and in connection with this litigation, and (iii) copies of other environmental documents produced by GE in discovery in this litigation.

I also reviewed and considered the transcripts and exhibits for the following depositions taken between July and September of 2014.

GE Witnesses

- Lewis Streeter, GE's Current Environmental Manager
- Alison Spare, GE's Current Communications Liaison
- Timothy Harrington, GE's principal environmental consultant on this matter from approximately 1987 through 2010
- Daniel Burnell, a GE environmental consultant who authored a groundwater flow modeling and natural attenuation analysis report in 2001
- Everett Pannier, Plant Manager of the GE Plant from 1995 through 2003
- Kevin Schlueter, Plant Manager of the GE Plant from 2003 through 2010
- Joseph Skaff, Environmental Coordinator of the GE Plant from approximately 1980 through 2002
- David Bond, former Head of Maintenance at the GE Plant and local point of contact for environmental issues associated with the Plant following its 2010 closing

Plaintiffs' Witnesses

- Lowell Beggs, principle member and founder of the Prairie Ridge Golf Course businesses, and a resident of a home at [redacted] just south the GE Plant
- Javier Carreno, member of the golf course businesses and head groundskeeper of the Prairie Ridge Golf Course
- Maggie Carreno, member of the golf course businesses and bookkeeper for the Prairie Ridge Golf Course
- Martha Kai Conway, member of the golf course businesses and resident of a home at [redacted], just south of the GE Plant
- Jeffrey Holmertz, accountant for the golf course businesses
- Gary Gehlbach, attorney for the golf course businesses

Environmental Reports

While the environmental document record for this case is voluminous, consisting of thousands of documents and hundreds of thousands of pages, the eight significant and comprehensive environmental reports are:

- Phase I Remedial Investigation Report (October 1987), by John Mathes & Associates, Inc. ("Mathes")
- Phase II Remedial Investigation Report (1989), by Canonie Environmental Services Corp. ("Canonie")
- Natural Attenuation and Groundwater Modeling Report (October 2001), by GeoTrans, Inc. ("GeoTrans")
- 2007 and 2008 Annual Groundwater Monitoring Report (January 27, 2010), by Hard Hat Services
- Focused Site Investigation Report (April 2013), by MHW Americas, Inc. ("MWH")
- Focused Site Investigation Addendum (May 2014), by MWH
- Vapor Intrusion Investigation Summary Report (March 2013), by ARCADIS U.S., Inc. ("ARCADIS")
- Vapor Intrusion Sampling Report (May 2014), by ARCADIS

BACKGROUND

A brief summary of background information, based on review of the documents described above, is given below. (A map showing the GE Plant, the Prairie Ridge Golf Course, Rock Creek, and surrounding area is included as Appendix C, Exhibit 1.)

Site Description

The GE Plant operated for several decades before closing in 2010. GE manufactured appliance parts, using chlorinated solvents as part of its manufacturing process. Three degreasing areas were reported by GE and described by GE personnel at the GE Plant. Two degreasers were in Building GE-1 (the main building, also called Building #15) on Wall Street. The two degreasers were referred to by GE personnel as the "guardette" degreaser (in the center of Building GE-1) and the "fabrication" degreaser (in the western portion of Building GE-1). Another degreaser in a capillary tubing manufacturing area apparently operated in Building #14, which is located just northeast of Building GE-1. (See Appendix D, Exhibit 12 for a map showing the building locations.) GE used the chlorinated solvent trichloroethene ("TCE") up until the 1970s, and the chlorinated solvent 1,1,1-trichloroethane ("TCA") up until 1994. Records also show that the GE Plant purchased and disposed of another chlorinated solvent perchloroethene ("PCE") in the 1970s. TCE, TCA, PCE, and other chlorinated compounds such as 1,2-dichloroethene ("1,2-DCE") and 1,2-dichloroethane ("1,2-DCA") have been found in samples of soil, soil gas, groundwater, and indoor air collected on and downgradient from the Plant property.

Geology and Hydrogeology

At the GE Plant and under ridges and topographically high locations nearby, silty clay with some sand generally overlies fractured carbonate rock, which in turn overlies the Maquoketa shale, which in turn overlies deeper carbonate rock. Within the topographic valley which contains the course of Rock Creek, mainly sand, gravel, clay, and silt overlie the shallower fractured carbonates. Rock Creek is not aligned with axis of the bedrock valley. (See Appendix C, Exhibit 2 for maps and cross-sections). That is, the deepest parts of the bedrock valley do not consistently underlie Rock Creek. Groundwater flows horizontally generally southward through the uppermost unconsolidated materials and in the uppermost carbonates. There also is groundwater flow in deeper rocks. Some vertical groundwater flow occurred, and may continue to occur, through the shale and into the deeper rocks, either naturally, or through conduits such as abandoned and defective wells. The rocks beneath the Maquoketa shale were tapped by the City of Morrison for the municipal drinking water supply, and chlorinated solvent contamination was found in the City of Morrison's wells.

General Description of Contamination

The geology and hydrogeology have enabled contaminants released on the GE Plant property to migrate to other properties south of the plant and into wells used by the Prairie Ridge Golf Course. Chlorinated solvent contamination has been found in soil, groundwater, and soil gas on the GE Plant property. Chlorinated solvent contamination has been found in groundwater sampled from monitoring wells and supply wells on the Prairie Ridge Golf Course. Chlorinated solvents have been found in soil gas underneath homes in a residential area south of the GE plant and under the Prairie Ridge Golf Course clubhouse. Chlorinated solvents have been found in indoor air samples in homes in the residential area south of the GE plant and in the Prairie Ridge Golf Course clubhouse. Significantly elevated concentrations of TCE, measured in the hundreds and thousands of micrograms per liter ("ug/l"), far exceeding the 5 ug/l Maximum Contamination Level (the "MCL" or the regulatory standard) for TCE, were found recently in groundwater samples collected from monitoring wells and from the north supply well on the Prairie Ridge Golf Course, downgradient from contaminated areas of the GE Plant. TCE was also detected in a groundwater sample from the south supply well, which is south of Rock Creek on the Prairie Ridge Golf Course.

Brief Chronology of Environmental Investigation Work

Below is a brief summary of some of the more significant environmental investigation events and activities between 1986 and 2014:

- 1986: TCE at concentrations above the MCL was discovered in groundwater samples collected from the City of Morrison supply wells.

- 1987: Environmental consultant Mathes reported to the IEPA the results of its initial investigation. Mathes recommended that additional investigation work be performed to interpret hydrogeologic conditions and evaluate potential source areas and migration pathways.

- 1988: City of Morrison Wells 1 and 2 were closed. GE's environmental consultant Canonie designed and the City began to operate a system to treat water from City Well 3.

- 1989: Canonie conducted an investigation to follow up on the Mathes work. Canonie concluded in its report that "the 'industrial complex' is not a source of VOCs to the unconfined aquifer" and "no further attempts to define sources in the industrial complex are recommended." Nevertheless, Canonie recommended that a soil gas survey focused on chlorinated solvent contamination be performed under Building GE-1, the main building where two degreasers were located. (The "industrial complex" is an area on the west side of the City of Morrison that includes the GE Plant. VOCs stands for volatile organic compounds, which is a group of chemicals that includes chlorinated solvents.)

- 1989: Target Environmental conducted a soil gas investigation at the locations of the two degreasers in Building GE-1. TCE, TCA, and other chlorinated compounds, were found in soil gas at the locations of both degreasers.

- 1990s: Throughout the 1990s, GE and its environmental consultants did not investigate further the sources of contamination (that is, the degreasers). No soil or groundwater samples were collected at or next to the locations of the degreasers. GE and its environmental consultants conducted monitoring of selected groundwater wells.

- 1996: GE developed a Request for Proposal ("RFP") for Hydrogeologic Consulting Services.

- 1999: GE retained GeoTrans, who responded to the RFP, to conduct a groundwater modeling and natural attenuation analysis. Drilling five soil borings in Building GE-1 at the locations of the two mentioned degreasers was included in GeoTrans' August 24, 1999 proposal for hydrogeologic consulting services.

- 2001: GeoTrans issued a report concluding that groundwater contamination was not flowing beyond Rock Creek, and that the contamination in the groundwater will naturally attenuate and reach MCLs. GeoTrans never did the source investigation it proposed. There were no soil borings placed to investigate the contamination at the location of the degreasers.

- 2002: The IEPA commented on the GeoTrans report identifying among other things the lack of a reliable well survey, the need to investigate the potential presence of dense nonaqueous phase liquid ("DNAPL"), and the need to perform a pump (aquifer) test on City Well 3 (originally recommended by Canonie in 1989, and characterized as an activity that GE was "willing to perform" once again by Harrington in 2002). For the next decade, none of this work was performed.

- 2001 - 2011: For the period of time from the GeoTrans report to the entering of the 2010 Consent Order between GE and the State of Illinois, GE and its environmental consultants conducted periodic groundwater monitoring. There was no field effort to investigate the contamination at the location of the degreasers or perform a reliable well survey.

- 2007: Lowell Beggs purchased the Prairie Ridge Golf Course.

- 2010: A groundwater well restriction ordinance was enacted by the City of Morrison. The north and south supply wells on the golf course are not in the City of Morrison and are not covered by the ordinance.

- 2011 - 2014: During this period of time, GE utilized different environmental consulting firms MWH and ARCADIS. A reliable well survey was performed which led to the "discovery" of two water supply wells on the golf course. Soil borings were performed inside Building GE-1 at the locations of the two degreasers and the location of former storage tanks, confirming the release of chlorinated solvents at these locations. Additional groundwater investigation work was performed, including the installation and sampling of several new monitoring wells on the golf course. Groundwater samples from the north and south supply wells on the golf course were collected and tested by GE.

OPINIONS

Opinion No. 1

Following the discovery of contamination in the City of Morrison, the environmental response work performed by GE and its environmental consultants did not conform to standard practice in the environmental industry. GE and its environmental consultants neglected for years to characterize sources, perform a reliable well survey, and define the extent of groundwater contamination.

After chlorinated solvent contamination was found in 1986 in the City of Morrison's municipal supply wells, and after the subsequent discovery of contamination at and downgradient from the GE plant property as reported by Mathes in 1987, GE failed to conduct two fundamental investigation activities. The two omissions from standard practice were (i) source identification and characterization, and (ii) identification of potential exposure points to chemicals that could have migrated from the GE plant, that is, a reliable well survey. Neither of these activities was done expeditiously. The performance of these activities was not accomplished between the time of the Mathes report in 1987 until recently in 2012, which shows the extent to which GE and its environmental consultants varied from standard industry practice.

A third deviation from standard practice was the failure to determine the extent of contamination. While the full delineation of contamination may take years, GE and its environmental consultants have not yet accomplished this 27 years later. They most notably have neglected to find clean groundwater underneath contaminated groundwater.

Source Investigation and Characterization. The degreasers were not investigated in a timely manner, or properly. Answers to initial questions about the conditions of the environment with respect to industrial solvents requires the location of any potential source and knowledge of what strength is associated with each source. A true understanding of what may be needed to address resulting groundwater contamination starts with that understanding. In 1987, Mathes reported levels of contamination in groundwater that indicated that the GE Plant was a source of that contamination. Additionally, the finding of chlorinated solvents in samples collected from the City of Morrison's water supply wells was reconcilable with the solvents used at the GE Plant. The 1989 Target Environmental report documented chlorinated solvents in soil gas consistent with the locations of two degreasers in Building GE-1 (the "guardette" degreaser in the center of the building and the "fabrication" degreaser in the western portion of the building). (See Appendix D, Exhibit 3) The initial concentration of TCE in a sample collected in 1987 by Mathes from monitoring well MW-105D, located near the southern boundary of the GE plant property, was 14,000 ug/l, which is 2,800 times the 5 ug/l MCL for TCE in drinking water. (See Appendix D, Exhibit 1, Figure 5-1 for the MW-105D location.) With such a high level of contamination at this monitoring well, understanding the location and strength of the source was of primary importance to understanding of potential mobilization to the groundwater, assessing the extent of the groundwater contamination, and determining any remedial effort needed to control the migration of contamination from the GE Plant.

This oversight (that is, the failure to investigate in a timely manner the degreaser sources) is especially troubling because there had been an effort to characterize a drum storage area behind and a fill area under the main building. Yet there was no similar effort at degreasers known to exist at the Plant. Degreasers are generally recognized as common sources of chlorinated solvent contamination.

And while it was a breach of basic environmental investigation standards not to investigate the degreaser sources in a timely manner, it is especially concerning given that GE's personnel and environmental consultants knew that the degreasers were present, had the result of the Target Environmental study in 1990, and were provided with several suggestions from its environmental consultants over the years to investigate those sources. For example, in a 1999 proposal from GE's groundwater modeling consultant GeoTrans, a source investigation was recommended, but that work was never performed by GeoTrans. GE should have understood (and apparently did understand) that degreasers were common sources of chlorinated solvent contamination, and should have known (and apparently did know) that the degreasers should have been investigated. The three obvious potential degreaser sources (two in Building GE-1 and one in Building #14) were not investigated in a timely manner.

In 2012, GE's environmental consultant MWH drilled soil borings and sampled soil under the "gardette" and the "fabrication" degreasers in the main building (that is, the degreasers in GE-1), performing the work that was first recommended over two decades earlier. The soil results establish the presence of chlorinated solvent contamination at these locations, and leave some remaining uncertainty about the presence of free phase industrial solvents (that is, DNAPL) in the soil where sampled. The best way to look for DNAPL is by sampling the groundwater in the immediate areas of the degreaser footprints. No such groundwater samples were collected. Additionally, the degreaser associated with copper tubing production (that is, the degreaser in Building #14) was not and still has not been investigated, nor has it ever been established that the degreasing activity at this location never used chlorinated solvents.

<u>No Reliable Well Survey.</u> A reliable well survey was not performed until 2012, more than two decades after the discovery of contamination. In 1987, after the Mathes "Phase I" investigation, GE had knowledge that elevated concentrations of TCE, TCA, and other chlorinated compounds were measured in groundwater samples collected by Mathes immediately downgradient from the GE Plant. Since 1986, GE had knowledge of the results from the testing of groundwater samples from the City of Morrison's supply wells. GE should have initiated a comprehensive and thorough survey to find all water supply wells that may have been impacted by contamination from the GE Plant after seeing the Mathes report. GE's next obvious opportunity to perform a reliable well survey was the "Phase II" investigation. A comprehensive and thorough survey to find all water supply wells should have been a part of the work performed by Canonie for its 1989 report.

The Mathes report did contain a list of eight wells that Mathes found in and around the City of Morrison. The first two wells listed in Table 2-2 of that report are approximately 4,500 feet southwest of the GE Plant, and southwest of the City of Morrison Wells 1, 2, and 3. The other six wells identified by Mathes are located west or north of the GE Plant in a direction that groundwater flow likely would not carry contamination to them. (See <u>Appendix D</u>, Exhibit 1 for Table 2-2.)

GE's environmental consultant Harrington did obtain well records in the late 1990s, which were reported in GeoTrans' 2001 report. A map showing the locations of wells is presented as Figure 3-2 in that report. (See <u>Appendix D</u>, Exhibit 4.) As explained by Mr. Harrington during his deposition, well records were requested from the Illinois State Geological Survey or Illinois State Water Survey. The well survey only considered areas outside of the limits of the City of Morrison. (Harrington Dep. 144:19-145:10.) The well survey also did not consider the Prairie Ridge Golf Course, as the survey did not include the area south of Wall Street and north of Rock Creek (that is, the Prairie Ridge Golf Course). (Harrington Dep. 144:7-18.) Finally, GE and its environmental consultants understood that the Prairie Ridge Golf Course was irrigated, but still never looked for supply wells on the golf course. (Harrington Dep. 141:24-142:18.)

Neither Mathes, nor Harrington, whose work GeoTrans incorporated, conducted two important components of a reliable water well survey: (i) a walk-about visual reconnaissance of the area of impacted groundwater, and (ii) direct outreach to home and property owners, including written communications, and a knock-on-the-door and questioning. These two steps were not performed by GE until 2012. In 2012, GE and its environmental consultant MWH, finally conducted a comprehensive and thorough well survey. As a result, GE "discovered" the supply wells on the Prairie Ridge Golf Course that had been there for years.

The failure of GE to "discover" the supply wells on the Prairie Ridge Golf Course is particularly troubling because the golf course was played by many individuals who worked at the GE Plant, including plant managers and environmental coordinators who were aware of the contamination issue. No wells on the Prairie Ridge Golf Course were identified in any GE document until 2012.

A well log from a supply well on the Prairie Ridge Golf Course is available on the Illinois State Geologic Survey webpage. It is not absolutely clear from the location information on this log whether it is for the north or the south supply well. However, the well log is generally consistent with the video inspection log included in Appendix H of MWH's 2013 FSI Report, and accordingly it is likely that this is the well log for the north supply well. (See Appendix C, Exhibit 3 for supply well log and video inspection log.) Both the north and south supply wells were on the golf course when the golf course was purchased in 2007. Regardless of the precise time of the installation of these wells, what is clear is that neither of the golf course supply wells were "discovered" by GE until 2012. From the time that contamination was originally discovered, GE should have taken efforts to ensure that new supply wells were not installed in the impacted area, and should have been routinely evaluating whether there were water supply wells in the impacted area that could have caused people to become exposed to contamination.

GE did not conduct a reliable well survey for decades. Individuals drank contaminated water from the golf course supply wells for years. Golf course employees, including Javier Carreno, drank significantly contaminated water supplied from the north supply well between the years 2007 and 2012. (J. Carreno Dep. 80:15-83:6.) TCE concentrations in samples from the north well were measured in 2012 at concentrations of 5,000 and 6,100 ug/l, at and over three orders of magnitude (or a thousand times) above the 5 ug/l MCL (the drinking water standard). These golf course employees did not stop drinking water from the north supply well until late 2012, upon being advised by GE that the water was contaminated. Had GE done a reliable well survey at any time between November 9, 1992 (the date reported on the single well log) and mid-2007 (the time that Lowell Beggs purchased the golf course) – such as in support of the 2001 GeoTrans report – GE could have been in a position to prevent these golf course employees from being exposed to contaminated water for the five year period.

Failure to Define the Extent of Groundwater Contamination. A basic necessity to understand and remediate the groundwater affected is to know the extent of groundwater affected above applicable standards. For example, significant levels of TCE contamination historically have been found in the 269 foot deep well MW-1LD, and contamination remains present at this well location. (See Appendix D, Exhibit 7, Figure 3 for well location; see Appendix D, Exhibit 6 for historical data from this well.) Simply put, even at this date, GE and its environmental consultants have not defined the lateral or the vertical extent of contaminated groundwater.

Opinion No. 2

From the time of discovery of the contamination until now, the environmental response work done by GE and its environmental consultants to assess the groundwater contamination issues at and downgradient from the Morrison Plant has been flawed, inadequate, and incomplete. GE and its environmental consultants have erroneously presented the groundwater flow system and the groundwater chemistry.

The environmental response work done at the GE Plant still is not adequate to understand the environmental conditions at and downgradient from the GE plant. There are two essential elements to understanding a groundwater contamination site such as the chlorinated solvent plume at the GE Plant and downgradient area: (i) the current and historic groundwater flow and (ii) the current and historic contamination chemistry, including both concentration trends and the theory of natural attenuation put forth.

These two elements were addressed in GeoTrans' 2001 problematic groundwater modeling and natural attenuation report. The GeoTrans report and its conclusions have been embraced and defended by GE and its environmental consultants since 2001. Yet the report is fundamentally flawed and its conclusions are incorrect. First, the GeoTrans report concluded that Rock Creek is a natural hydraulic barrier that will collect contaminated groundwater originating from the GE Plant. Yet contamination was found in a groundwater sample collected south of Rock Creek in the south supply well, and where deeper contaminated groundwater flows to is still not completely known. Second, the GeoTrans report concluded that contamination will naturally attenuate, or degrade over time, at a rate that makes it unnecessary for GE to conduct any active remediation or other environmental work besides groundwater monitoring. But contamination in groundwater recently has been found at concentrations far in excess of the concentrations predicted by GeoTrans.

Groundwater Flow. GE and its environmental consultants have erroneously presented the groundwater flow characteristics and properties, and thus how contamination has migrated and continues to migrate from the GE Plant. The GeoTrans report has two major conclusions with respect to groundwater flow. First, GeoTrans concludes that groundwater flow is mainly horizontal with vertical upward flow near Rock Creek and downward flow in the "upland areas." Second, GeoTrans concludes that Rock Creek is a gaining stream (a "regional divide"), accepting groundwater flow that is contained in the contaminated upper aquifer, obviating any concern that areas south of Rock Creek will be affected by contamination from the GE Plant. In its recent 2013 and 2014 reports, MWH has largely followed these ideas.

With respect to the basic geology of the area near the GE Plant, GeoTrans and later MWH have made fundamental errors. First, the block diagram prepared by GeoTrans (Appendix D, Exhibit 4, Figure 3-18) and the conceptual site model prepared by MWH (Appendix D, Exhibit 7, Figure 12) consistently show that Rock Creek is directly above the thickest (deepest top of bedrock) portion of valley fill. The map of bedrock topography and the course of Rock Creek and the six cross sections prepared for this report (Appendix C, Exhibit 3) show how GeoTrans and MWH incorrectly simplified the geology. Rock Creek is not aligned on top of the bedrock valley axis. Rock Creek actually flows along a bedrock ridge near City Wells 1, 2 and 3. Rock Creek also flows along the edge of the bedrock valley in the vicinity of the south supply well on the golf course. These geometries are important to surface water and groundwater flow as discussed below. Second, the fill in the bedrock valley contains a significant amount of silt and clay in addition to sand and gravel. The presence of these fine-grained layers is shown in Figures 2-3 to 2-5 of GeoTrans' report. (See Appendix D, Exhibit 5.) The MWH reports show a generalized clay layer approximately in the middle of the valley fill, with sand and silt above and sand below the clay with a basal conglomerate layer above the bedrock interface. (See Appendix D, Exhibit 7, Figure 13 of the 2013 FSI report, and Appendix D, Exhibit 8, Figure 5 of the 2014 Addendum report.) The importance of these units to the groundwater flow is also discussed below.

With respect to basic hydrology, the GeoTrans report is fundamentally at odds with itself. While the modeling clearly has Rock Creek gaining water from groundwater, Table 2-6 of the very same report shows significant loss of water from Rock Creek to groundwater. (See Appendix D, Exhibit 4 for Table 2-6; see Appendix C, Exhibit 1 for stream gage locations.) There are four different days of measurement in which three days show a loss from the creek to groundwater in the reach of SG-2 to SG-3 and all four days show a loss from the creek to groundwater in the reach SG-1 to SG-2. Despite this data in its own report, GeoTrans chose to model Rock Creek as gaining water from groundwater in the area modeled.

Furthermore, the variability in the sediments in the valley fill is glossed over and obfuscated in the GeoTrans flow model. The location and thickness and possible continuity of the low permeability units, clays and silts has a profound impact on the flow patterns of groundwater. The testing performed by GeoTrans largely measured horizontal permeability of the units most capable of transmitting water and not that of the clay layer. (See Appendix D, Exhibit 4, Table 3-2.) The modeling performed by GeoTrans continued ignoring the clays. (See Appendix D, Exhibit 5, Table 4-2.) As the clay and, more cogently, bottom of clay, is found at an elevation lower than Rock Creek's bottom, groundwater below the clay is at least partially isolated from the influence of Rock Creek where the clay is present. This could easily cause large portions of groundwater to flow under Rock Creek to the south, with contamination as a result ending up on the south side of the creek. The deeper the unit, the more likely the isolation, explaining, logically, why the TCE discovered south of Rock Creek is from a well that taps the fractured upper carbonate bedrock, the south supply well of the golf course. In a losing stream environment, such as that documented by GeoTrans, underflow, that is, flow to the south of Rock Creek, becomes the expected case.

Additionally, GeoTrans chose to combine three units into a single layer, namely the uppermost layer (referred to in the GeoTrans report as Layer 1). The units in this layer were upland deposits, valley fill deposits, and uppermost weathered carbonate bedrock. (See Appendix D, Exhibit 5, Figure 4-2.) The clay in the valley fill was ignored. The clay in the valley fill is critical to understanding the flow system, especially vertical flow. In no analysis performed by GeoTrans was attention given to the presence of clays and their effect on vertical flow. This omission is most disturbing because of the position of known clays is in the valley fill, namely along and below Rock Creek. This clay location under Rock Creek, of all the reported clay locations, is the most critical to upward flow into the creek from units below the known clay. The expected permeabilities for clay are much lower than the sand and the sand and gravel units. These lithologic boundaries essentially are ignored by GeoTrans, and also by MWH.

The data available does not define the extent of contamination. The lateral extent is not known as can be seen from the failure to characterize the flow at and beyond Rock Creek. More importantly, the vertical extent of contamination has not been defined. This conclusion is easily understood, as the north and south supply wells of the Prairie Ridge Golf Course, which are in the bedrock, show the presence of TCE. This vertical problem is best exemplified by the results from the north supply well, where TCE was found in groundwater at many times the drinking water standard and is on property not owned by GE.

In sum, GeoTrans, whose analysis was followed by GE and its environmental consultants, failed to properly understand the basic geology and hydrogeology of the groundwater system in the vicinity of Rock Creek. Rock Creek is not a "regional divide" as GeoTrans and Harrington have described it. Nor is Rock Creek the location of a deeper "stagnation zone" described by MWH in its 2013 FSI Report. Rather, the data has shown that Rock Creek does not capture all of the deeper (gravel and upper bedrock) groundwater contamination.

Groundwater Chemistry. The postulated natural attenuation of chemicals in the groundwater is not occurring and hence natural attenuation is not occurring fast enough or over a broad enough area to be the remedial method to address the contamination. Furthermore, the results of historic chlorinated solvent testing of groundwater sampled from monitoring well MW-105D, located just outside Building GE-1, downgradient from degreasers, meets the criteria for the potential presence of a DNAPL at the source leading to this well.

GE and its environmental consultants over the years have taken the position that the natural system is degrading the concentrations of the chlorinated solvents, and that this degradation is sufficient to make natural attenuation the best remedial approach for dealing with the groundwater contamination. This conclusion was first articulated completely in the GeoTrans report. GE's contention has been that natural degradation is the preferred remedial alternative for these chemicals. GE has been wrong.

The adequacy of the natural attenuation remedial alternative is not consistent with the fact that significantly contaminated groundwater is still present under the Prairie Ridge Golf Course. GE's claims are not supported by the data. The explicit predictions of decreasing concentrations of TCE with time predicted in the GeoTrans report are in obvious disagreement with the concentrations measured since the time of the prediction. (See Appendix D, Exhibit 5, Figures 5-9 to 5-20 and compare with Appendix D, Exhibit 7, Figures 10A, 10B, and 11 and Appendix D, Exhibit 8, Figures 11A, 11B and 11C.)

GE and its environmental consultants have also changed groundwater sampling methodologies (bailing, to low flow pumping, to passive diffusion bags) over the years making it difficult to see data trends and make proper interpretations of natural attenuation. All of the data, including those taken by passive diffusion bag sampling, for TCE from MW-105D are tabulated. (See Appendix C, Exhibit 4.) The apparent artificially low concentrations of TCE for passive bag samples is clear. Especially disturbing is the contrast in the two samples collected on June 11, 2003 – the passive bag sample had a concentration of TCE of 260 ug/l, and the low flow methodology sample had a concentration of 4,500 ug/l. The 4,500 ug/l concentration is in a similar range as concentrations detected in this well approximately a decade earlier, in the mid-1990s. Nevertheless, GE and its environmental consultants have only used passive bag samples to collect samples from MW-105D since 2004. A program of comparing passive bag results with the preceding low flow methodology should have been conducted by GE and its environmental consultants. The history of contamination found at MW-105D, the demonstrated affect that the sampling methodology has on the groundwater quality results from this well, and the high levels of contamination found in wells downgradient from MW-105D on the golf course, means that there is TCE contamination above the MCLs, but not necessarily at the precise values reported. More work is needed to understand these discrepancies. A similar problem exists for the data set for MW-1LD. (See Appendix D, Exhibit 6.) In any case, the data do not support the natural attenuation remedy.

GeoTrans stated in its report that the natural attention half-life for TCE in the vicinity of the main building (Building GE-1) ranged from 2.1 to 3.5 years. That means that every 2.1 to 3.5 years, the TCE concentrations would be reduced in half. Yet the string of concentrations of TCE in wells, ignoring the apparent artificially low values for passive bag samples, clearly does not trend in that fashion. (See Appendix C, Exhibit 4.) These results are inconsistent with the idea of natural attenuation.

Furthermore, GeoTrans reported model-simulated TCE concentrations of the uppermost aquifer based on a worst case half-life of 6.9 years. (See Appendix D, Exhibit 5, Figures 5-12 and 5-15.) Figure 5-12 shows a predicted concentration of TCE in the area of the Prairie Ridge Golf Course clubhouse and the north supply well of roughly 100 ug/l in 2002, and Figure 5-15 shows a concentration in the apparent range of 10 ug/l in 2019 at that same location (no higher contour is shown on this map). Yet in 2012, at this very location, from the north supply well, TCE was found in groundwater at concentrations of 5,000 and 6,100 ug/l, at and over 50 times the predicted concentrations.

Moreover, also on Figures 5-12 and 5-15, groundwater just barely north of Rock Creek and on the golf course was predicted to have less than one ug/l of TCE in 2002 and a concentration in the range of 5 ug/l in 2019. Yet recent results from monitoring wells MW-7 and MW-8 installed in 2011 and sampled between 2012 and 2014 indicated TCE at concentrations in the hundreds and thousands of ug/l. (Appendix D, Exhibit 7, Figures 10A and 10B and Appendix D, Exhibit 8, Figures 11A and 11B.) Incidentally, MW-7 and MW-8 are the two wells that GeoTrans recommended be installed in 2001 (Appendix D, Exhibit 4, Figure 5-1) and these wells were not installed until 10 years later. TCE was found in a groundwater sample in 2012 from MW-8 at a concentration of 4,800 ug/l, which like the samples from the north well, even exceeded the maximum concentration of 4,300 ug/l used as the "high concentration point" basis for GeoTrans' predictive natural attenuation modeling (Appendix D, Exhibit 5, Figure 5-9) Clearly if natural attenuation were working, TCE would not be found in golf course wells at concentrations in the hundreds and thousands of ug/l. Rather, TCE would be found at concentrations approaching the MCLs, as GeoTrans predicted, but which never happened.

The concentrations measured recently in the wells under the Prairie Ridge Golf Course are much higher than ever predicted by GeoTrans, are consistent with the fact that TCE has been present at several thousands of ug/l in MW-105D, and are inconsistent with the claim that natural attenuation is a sufficient and appropriate remedy. These levels of contamination are also consistent with the presence of a DNAPL at the source. It is generally accepted that the presence of chlorinated solvents at concentrations of 1% of the solubility is a strong indicator of the presence of a DNAPL. (See Cohen and Mercer (1993), as repeated in the IRTC (1997)). The solubility of TCE is generally accepted as between 1,100,000 ug/l and 1,500,000 ug/l. (See Illinois 1997 "TACO" rules and 2013 amended "TACO" rules, 35 IAC 742). Thus, the TCE concentration in groundwater needed to strongly suggest the presence of a DNAPL is 11,000 to 15,000 ug/l. These levels have been exceeded in monitoring well MW-105D, a well that is not far south of the degreaser units in the main building (Building GE-1). Concentrations of TCE at roughly half the 1% level have been found on the golf course (north supply well and MW-8), even further from the degreasers. The presence of such high concentrations of TCE in wells on the golf course and MW-105D support the likely presence of a DNAPL at the GE Plant.

GeoTrans also analyzed for the commonly found species that are of importance to reductive dechlorination, the process relied upon for natural attenuation. Scientific knowledge in 1999 and now relies on measurements such as oxidation-reduction potential (ORP), dissolved oxygen (DO), nitrate, ferric iron, sulfate, and sulfide. Continued monitoring of the parameters found to be most important should be instituted. However, while all of this data was collected by GeoTrans, it was not used to support or defend the viability of natural attenuation as a remedy.

Investigation of the Golf Course. GE did not begin to develop accurate data about the degree and extent of groundwater contamination on the golf course until late 2011 and 2012 when GE installed and sampled new monitoring wells MW-7 and MW-8 and sampled the two golf course water supply wells. It was through this work, which should have been performed much earlier, that GE learned that the contamination on the golf course was at higher concentrations and at a greater extent than was ever previously reported. Throughout the 2000s, including in 2007 when Lowell Beggs purchased the golf course, GE represented to the IEPA, and thus to the public at large, that there was a contained groundwater contamination problem on the golf course and contamination was taking care of itself through natural attenuation.

Opinion No. 3

The work done by GE and its environmental consultant ARCADIS for the vapor intrusion issues in the area near the GE Plant is insufficient to conclude that residents in the homes south of the plant, and occupants and users of buildings in the affected area such as the golf course clubhouse, are not at risk. Additional vapor intrusion investigation and monitoring work should be performed.

The characterization of the vapor intrusion pathway has been performed principally by GE's environmental consultant ARCADIS. ARCADIS collected soil gas and indoor air samples at homes in the residential area south of the GE Plant and from the clubhouse at the Prairie Ridge Golf Course.

At the residence at non-responsive in which Lowell Beggs and Kai Conway live, 1,2-DCA was found in an indoor air sample at a concentration greater than the risk based standard for indoor air, applying the default 1 in 1,000,000 (10^{-6}) target cancer risk factor.

The initial vapor intrusion report prepared in 2013 by ARCADIS indicated that the measured concentration of 1,2-DCA was compliant with a standard based on a 1 in 100,000 (10^{-5}) target cancer risk factor. In the subsequent 2014 ARCADIS vapor intrusion report, 1,2-DCA is accurately reported as not being in compliance with the 1 in 1,000,000 (10^{-6}) standard. The 1 in 1,000,000 (10^{-6}) target cancer risk factor is the generally accepted default target cancer risk level used for the development of screening criteria. In its 2014 report, ARCADIS noted that while present in indoor air at non-responsive, 1,2-DCA was not found in the subslab soil gas collected beneath that home. The inference is that the 1,2-DCA contamination did not originate from the GE Plant.

Thus in 2013, GE (and ARCADIS) argued that 1,2-DCA in the indoor air was below the risk-based screening level. In 2014, GE (and ARCADIS) argued that 1,2-DCA in the indoor air was above the risk-based screening level, but the 1,2-DCA was not caused by GE because it was not in the soil gas.

1,2 DCA was first found in groundwater sampled from MW-105D in 1987 by Mathes. 1,2-DCA was reported in several soil and groundwater samples in the data tables contained in the 2014 ARCADIS report. Based on the data, more vapor intrusion testing and risk analysis should be done at the home at non-responsive.

Also reported by ARCADIS, indoor air and soil gas samples collected from the clubhouse at the Prairie Ridge Golf Course contained chlorinated solvents associated with the GE Plant. The concentrations do not indicate active remediation is necessary at this time, but more vapor intrusion and risk analysis should be done

Based on the levels of indoor air and soil gas concentrations found in samples collected by GE and its consultant ARCADIS, vapor intrusion is a concern, and long term vapor intrusion monitoring is necessary. Contamination continues to migrate from the GE Plant, and levels of chlorinated solvents in groundwater under homes and buildings could change over time. Conditions of homes and buildings also could change over time. Finally, recent publications on the general subject of vapor intrusion have shown that reliance on just a few discrete tests for vapor intrusion is not likely to be adequate to asses risk. (Johnston and Gibson, 2013 and ASTM, 2014.) Under the circumstances in which TCE is present in groundwater south of the GE Plant in the thousands of ug/l, and where the nature and extent of contamination is not fully understood, and because only limited testing has been performed at homes and in the clubhouse, GE should set up a program to further measure and monitor the vapor intrusion risk, and implement vapor intrusion mitigation if needed.

Opinion No. 4

The work done to date by GE and its environmental consultants is not sufficient to make a proper final remedial determination for the Prairie Ridge Golf Course. However, what is clear is that natural attenuation has not worked and is not an appropriate remedy. Source control at the GE Plant and active remediation under the golf course will be needed. More investigation work is necessary.

Several simple observations of the positions taken by GE and its environmental consultants show that their present understanding of the groundwater conditions under the Prairie Ridge Golf Course is insufficient to decide the ultimate remedy.

First, the role that Rock Creek has played in the hydrogeologic system is a threshold issue that needs to be addressed. The parts of Rock Creek which lost or lose water need to be clearly defined. GE cannot implement a remedy with a fundamentally flawed understanding of the behavior of Rock Creek.

Second, defining the horizontal and vertical extent of contamination is essential. A final remedy cannot be developed when the nature and extent of contamination is not defined, and 27 years after the Mathes report, the nature and extent of contamination, from the source of contamination to the plume's outermost and deepest extents, is still not defined.

Third, GE and its environmental consultants have historically stated that natural attenuation should be the mechanism chosen to deal with the concentrations of chlorinated solvents that underlie the Prairie Ridge Golf Course. This remedial option has been proven ineffective. GE and its environmental consultants had the capacity to determine that it was not working long ago.

Fourth, a quantitative understanding of the source strength - that is the distribution of concentration of chlorinated solvents in the deep soil and groundwater at the location or locations from which the chemicals likely were released does not exist. At the least, a well tapping the upper bedrock fractured zone should be installed just to the south of each degreaser. The remaining magnitude of contamination in the source areas needs to be defined to develop an effective remedy. Without that understanding, the appropriate remedy cannot be determined.

Fifth, existing groundwater wells with TCA should be sampled for 1,4-dioxane, a common TCA additive, and a highly mobile and likely human carcinogen. If found, 1,4-dioxane could be a very valuable "tracer" for groundwater flow and contamination.

Sixth, additional field efforts should be commenced on the Prairie Ridge Golf Course with the aim of completely understanding the groundwater flow conditions (vertical and horizontal pathways, stratigraphy, and the role of Rock Creek) and the horizontal and vertical extent of groundwater contamination. At a minimum, new nested monitoring wells with a surface water elevation measurement point should be installed next to the south side of Rock Creek. Based on results from these points, other wells will likely need to be installed and surface water discharge measurements may need to be made.

Seventh, in conjunction with the performance of the investigation work described above, a qualified environmental remediation team should be engaged to evaluate remedies, both interim and long term. Active remediation technologies should be considered that will both prevent contamination from leaving the GE Plant and treat the contamination under the Prairie Ridge Golf Course. Source control to prevent contamination from leaving the GE Plant may include pump-and-treat, impermeable walls, and reactive walls. Treatment of groundwater under the golf course may include pump-and-treat or the injection of materials that accelerate the rate of chlorinated solvent degradation.

In sum, a significant investigation and active remediation effort is needed for GE to address the contamination problem at and downgradient from the GE Plant that has persisted for decades without meaningful improvement. Waiting for contamination to degrade while conducting limited monitoring has not worked, is not working, and cannot continue indefinitely.

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APPENDIX A

RESUME OF KONRAD J. BANASZAK

GENESIS ENGINEERING & REDEVELOPMENT

Konrad Banaszak, PhD and CPG
Hydrogeologist & Geochemist

Konrad J. Banaszak, PhD is a hydrogeologist and geochemist, bringing over 40 years of experience to Genesis Engineering and Redevelopment as Chief Scientist. Dr. Banaszak is a leading expert in the fate and transport of chemicals, the geochemistry of water and sediments, and the migration and impacts of soil vapor to indoor air. Dr. Banaszak provides expert witness services on complex litigations for plaintiffs and defendants and Project Management services on numerous projects.

From his PhD thesis on the origins of lead and zinc ores found in limestones and dolomites to recent efforts to understand the generation and movement of trichloroethene vapors, Konrad has worked with fluids. As a geochemist and hydrogeologist, he started in academia. The development of a heightened environmental concern lead to his involvement first with the government as a regulator and researcher and then in the private sector as a consultant/expert.

Dr. Banaszak has significant experience with the management of scientists, engineers, and the professionals necessary to government and business. For example, he was Chief of a 50 person Hydrologic Investigations Section with an annual budget of roughly $2.5m in the mid '80s. Konrad opened the Indianapolis Office of Geraghty and Miller (now Arcadis-US) and successfully lead the office to high profitability. He also led the Environmental Investigations Business Practice for Arcadis-US, with responsibility for ensuring both the scientific accuracy and profit and loss of 42 offices. Konrad joined Genesis Engineering and Redevelopment in October of 2010.

EDUCATION

Bachelor of Science, Geology, Beloit College
Master of Science, Geology, Northwestern University
Doctorate, Geochemistry, Northwestern University

CERTIFICATIONS

Illinois Licensed Professional Geologist (#196-000436)
Indiana Certified Professional Geologist (#16)
Kentucky Certified Professional Geologist (#835)
Wisconsin Certified Professional Geologist (#446)
Certified Professional Geologist (AIPG-#3981)

GENESIS ENGINEERING & REDEVELOPMENT

Konrad Banaszak, PhD and CPG

EXPERIENCE

Chief Scientist, Genesis Engineering and Redevelopment, 2010-present
Chief Scientist, EnviroForensics, 2008-2010
Senior Vice President, Keramida Inc., 2003-2008
Independent Consultant, 2003
Senior Vice President, Practice Leader, Geraghty and Miller which became Arcadis-US, 1988-2002
Groundwater Specialist and then Chief of Hydrologic Investigations, Indiana District, Water Resource Division, United States Geological Survey, 1981- 1988
Hydrogeologist/Water Quality Specialist additionally Officer for Mineral Research Institutes, US Office of Surface Mining, Region III, 1979-1981
Associate Professor of Geology, Indiana University Purdue University at Indianapolis, 1977-1979
Assistant Professor of Geological Engineering, University of Mississippi, 1971-1977

PROFESSIONAL ASSOCIATIONS

American Association for the Advancement of Science
American Geophysical Union
American Institute of Hydrology
American Institute of Professional Geologists
American Water Resources Association
Geological Society of America
Geochemical Society
Indiana Academy of Sciences, Fellow
Indiana Geologists
Indiana Water Resources Association

REPRESENTATIVE ACTIVE PROJECTS

Chlorinated VOCs in a karst terrain with Public Supply Wells in Central MO.

Cleanup of nitrate contaminated groundwater, Central Valley, CA.

Konrad Banaszak, PhD and CPG

Remediation of landfill that received drilling mud and designation of contaminants to PRPs, San Joaquin Delta, CA.

Gasoline contamination in groundwater and as a separate phase in southern MS.

Chlorinated VOCs contamination, Los Angeles, CA.

Chlorinated and Petroleum VOCs contamination, Southern CA

Various Dry Cleaners and Plating Shops, from NY to CA.

REPRESENTATIVE FORMER PROJECTS

Vapor intrusion of chlorinated VOCs for housing development in Central IN.

Consulting Expert, chlorinated VOCs and Perchlorate groundwater contamination in Southern CA.

Expert witness - cost recovery Brownfield revitalization and cleanup Indianapolis, IN.

Expert witness for cVOC contamination in groundwater from industrial park in suburban Chicago.

Expert Witness for nitrate contamination of Public Supply Well, Central Valley, CA.

Nitrate contamination of groundwater and domestic well, Central Valley, CA.

Expert witness for production of sediment in surface streams from a construction site in Central Indiana.

Floating product and petroleum contamination with vapor intrusion and surface water impacts in area of New York City.

Goundwater level issues for drainage control ponds in Central Indiana.

Geochemical expert in Superfund cost allocation, arsenic in Pennsylvania.

Lead consultant on pesticide/herbicide Superfund site in Southeast.

Consulting hydrologist for quarry operator for site in Central Indiana, which then lead to work all over the contiguous US.

Lead consultant on RCRA RFI/CMS for large nonferrous metals refining and recycling plant in NW IN.

Lead/advising consultant on RCRA RFI/CMS for two steel mills in NW IN.

Lead and advising consultant for a self-implementing PCB cleanup - “Mega Rule”.

Konrad Banaszak, PhD and CPG

Geochemical consultant on chemicals that entered Puget Sound, WA.
Geochemical and isotope expert witness for landfill toxic tort in Texas.
Geochemical and loading allocation expert under Superfund watershed in New York.
Expert witness on the probable character of dust in an asbestos case brought to trial in San Francisco but concerning a site in Hoboken, NJ.
Source identification and allocation of PCBs in two streams in IN and one in OH.
Expert witness for cost allocation for a chemical depot that was atop an old coal tar refinery in Chicago.
Expert witness, geochemistry and isotopes of oil field brines for several sites in TX.
Advising geochemist on mobility and treatment nuclear waste site in WA.
Lead hydrogeologist in the development of an Institutional Control Area alternative for several Superfund subsites in Nebraska.
Lead hydrogeologist and geochemist (including radionuclide and stable isotopes) for site-wide study of Argonne National Laboratories, IL.
Expert witness for harm and cost recovery action in Federal Bankruptcy action.
Geochemical/groundwater expert in cost recovery for cVOCs "Silicon Valley," CA.
Senior advisor for geochemistry of inorganic and organic contamination for a large landfill in the middle of intense industrial development in Los Angeles Metro Area.
Expert witness for cost recovery for a major landfill operator for multiple sites.
Advising expert on hog waste for major food manufacturer, NC.
Senior advisor for environmental chemistry – RCRA - pesticides manufacturer KS.
Groundwater expert for Brownfield redevelopment - Jefferson North Assembly Plant, Chrysler, Detroit, MI.
River Bank Infiltration projects for both Louisville Water and Indianapolis Water.
Expert witness for manufacturer of large paper making machinery in N IL over potential contamination of domestic wells.
Expert witness for manufacturer in Los Angeles Area, using a then new "chemical fingerprinting" technique.
Expert witness for logger in California involved in a case of two fish kills and alleged sedimentation and water quality degradation of a river and two reservoirs.
Outside expert for State of North Carolina on geochemistry and hydrogeology for siting a low-level radioactive waste facility.
Expert witness in several cases for the coal mining industry in Indiana, the most notable of which concerned disposal of coal combustion wastes in surface mines.

GENESIS ENGINEERING & REDEVELOPMENT

Konrad Banaszak, PhD and CPG

Geochemical expert on cost allocation in a case concerning heavy metals in SC.

Expert to develop systems to predict behavior of chemicals spilled on or applied to soils for a major agricultural chemical company.

Expert witness for nitrate contamination from hog waste in surface stream in IN.

Expert Review of Four County Landfill (IN) for the Agency for Toxic Substances and Disease Registry.

Expert Review of the EIS for the proposed CDF in Lake Michigan to hold sediments to be dredged from the Indiana Harbor Canal for EPA-V.

Expert Review of the REM/FIT of the North Main Street Well Field, Elkhart, IN for EPA-V.

Represented USGS in Development of Field effort to capture spring flow at highest groundwater level from karst systems near Bloomington, IN for EPA-V.

Expert witness - sample collection of stream water for the Office of Surface Mining.

Conducted acid rain studies in Indianapolis, IN and Oxford, MS.

APPENDIX B

PUBLICATIONS OF KONRAD J. BANASZAK

PUBLICATIONS

Konrad J. Banaszak

1969 Regional Significance of Lithofacies of the Mesozoic Rocks of the Sand Springs Range, West Central Nevada [abs]: Proceedings of the Illinois Academy of Science.

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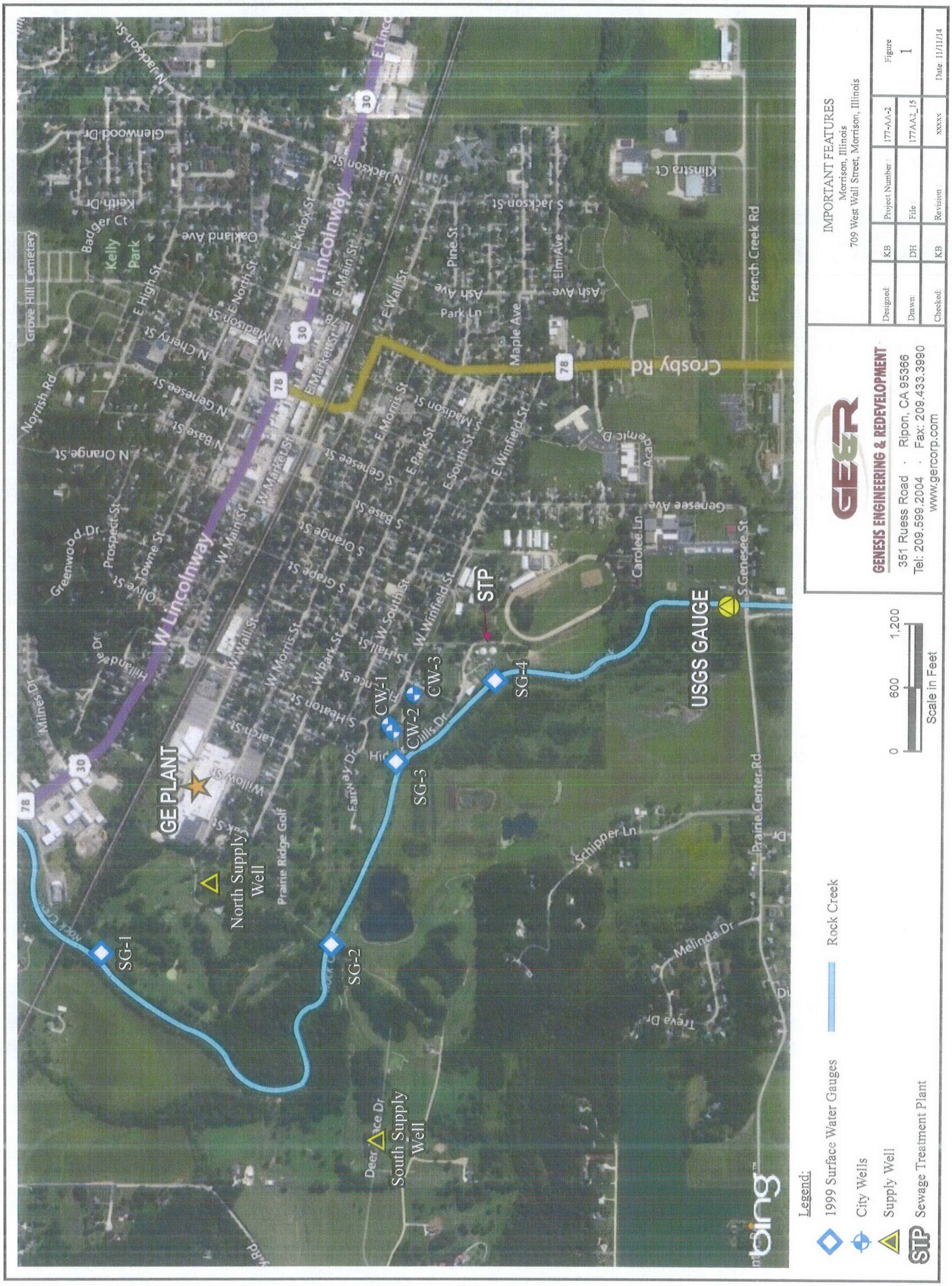
APPENDIX C

REPORT EXHIBITS

<u>Exhibit 1</u>

Map of GE Plant, Prairie Ridge Golf Course, and Surrounding Area Prepared by GER


GE PLANT
North Supply Well
South Supply Well
STP
USGS GAUGE
SG-1
SG-2
SG-3
SG-4
CW-1
CW-2
CW-3
W Lincolnway
E Lincolnway
Crosby Rd
French Creek Rd
Prairie Center Rd
Legend:
1999 Surface Water Gauges
City Wells
Supply Well
STP Sewage Treatment Plant
Rock Creek
0 600 1,200
Scale in Feet
GENESIS ENGINEERING & REDEVELOPMENT
351 Ruess Road · Ripon, CA 95366
Tel: 209.599.2004 · Fax: 209.433.3990
www.gercorp.com
IMPORTANT FEATURES
Morrison, Illinois
709 West Wall Street, Morrison, Illinois
Designed: KB
Drawn: DH
Checked: KB
Project Number: 177-AA-2
File: 177AA2_15
Revision: xxxxx
Figure 1
Date: 11/11/14

<u>Exhibit 2</u>

Map of Geologic Features and Cross-sections Prepared by GER

Legend:

580 Bedrock Elevation Contour

Rock Creek

Note: Same Area as Figure 1

0 600 1,200

Scale in Feet

GENESIS ENGINEERING & REDEVELOPMENT

351 Ruess Road · Ripon, CA 95366

Tel: 209.599.2004 · Fax: 209.433.3990

www.gercorp.com

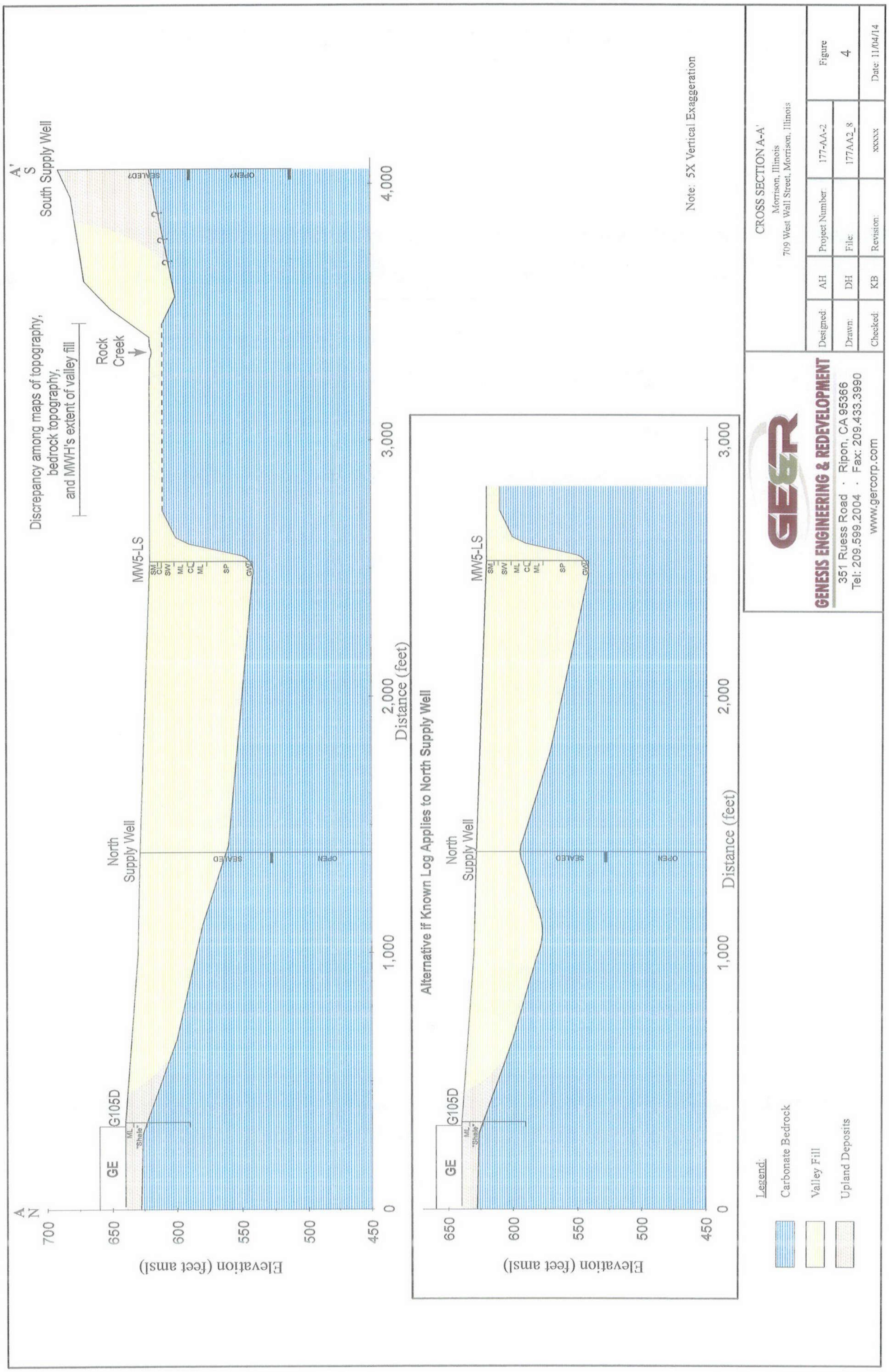
BEDROCK TOPOGRAPHIC MAP

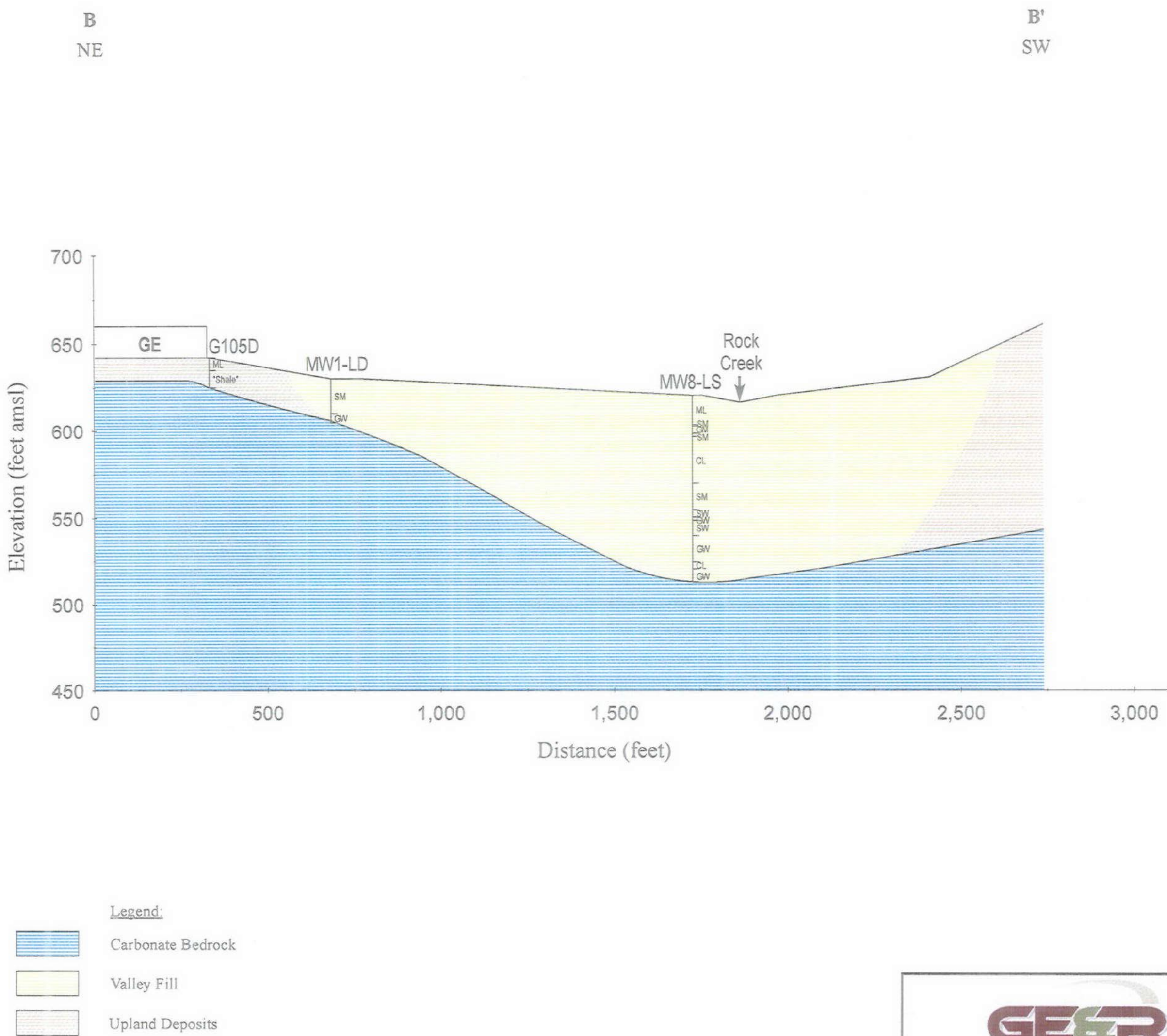
Morrison, Illinois

709 West Wall Street, Morrison, Illinois

Designed:	KB	Project Number :	177-AA-2	Figure 2
Drawn:	DH	File :	177AA2_7	
Checked:	KB	Revision :	xxxxx	Date 11/11/14


GE PLANT
North Supply Well
South Supply Well
SG-1
SG-2
SG-3
SG-4
CW-1
CW-2
CW-3
STP
USGS GAUGE
A
A'
B
B'
C
C'
D
D'
E
E'
F
F'
Legend:
1999 Surface Water Gauges
City Wells
Supply Well
STP Sewage Treatment Plant
Cross Section Line
Rock Creek
0
600
1,200
Scale in Feet
GENESIS ENGINEERING & REDEVELOPMENT
351 Ruess Road · Ripon, CA 95366
Tel: 209.599.2004 · Fax: 209.433.3990
www.gercorp.com
CROSS SECTION LINES
Morrison, Illinois
709 West Wall Street, Morrison, Illinois
Designed: KB
Drawn: DH
Checked: KB
Project Number: 177-AA-2
File: 177AA2_13
Revision: xxxxx
Figure 3
Date 11/11/14


A N
A' S
South Supply Well
Discrepancy among maps of topography, bedrock topography, and MWH's extent of valley fill
Rock Creek
MW5-LS
North Supply Well
G105D
GE
ML
"Shale"
SM
CL
SW
ML
CL
ML
SP
GW?
SEALED
OPEN
SEALED?
OPEN?
Elevation (feet amsl)
700
650
600
550
500
450
0
1,000
2,000
3,000
4,000
Distance (feet)
Alternative if Known Log Applies to North Supply Well
Note: 5X Vertical Exaggeration
Legend:
Carbonate Bedrock
Valley Fill
Upland Deposits
GENESIS ENGINEERING & REDEVELOPMENT
351 Ruess Road · Ripon, CA 95366
Tel: 209.599.2004 · Fax: 209.433.3990
www.gercorp.com
CROSS SECTION A-A'
Morrison, Illinois
709 West Wall Street, Morrison, Illinois
Designed: AH
Drawn: DH
Checked: KB
Project Number: 177-AA-2
File: 177AA2_8
Revision: xxxxx
Figure 4
Date: 11/04/14



Note: 5X Vertical Exaggeration

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Tel: 209.599.2004 · Fax: 209.433.3990
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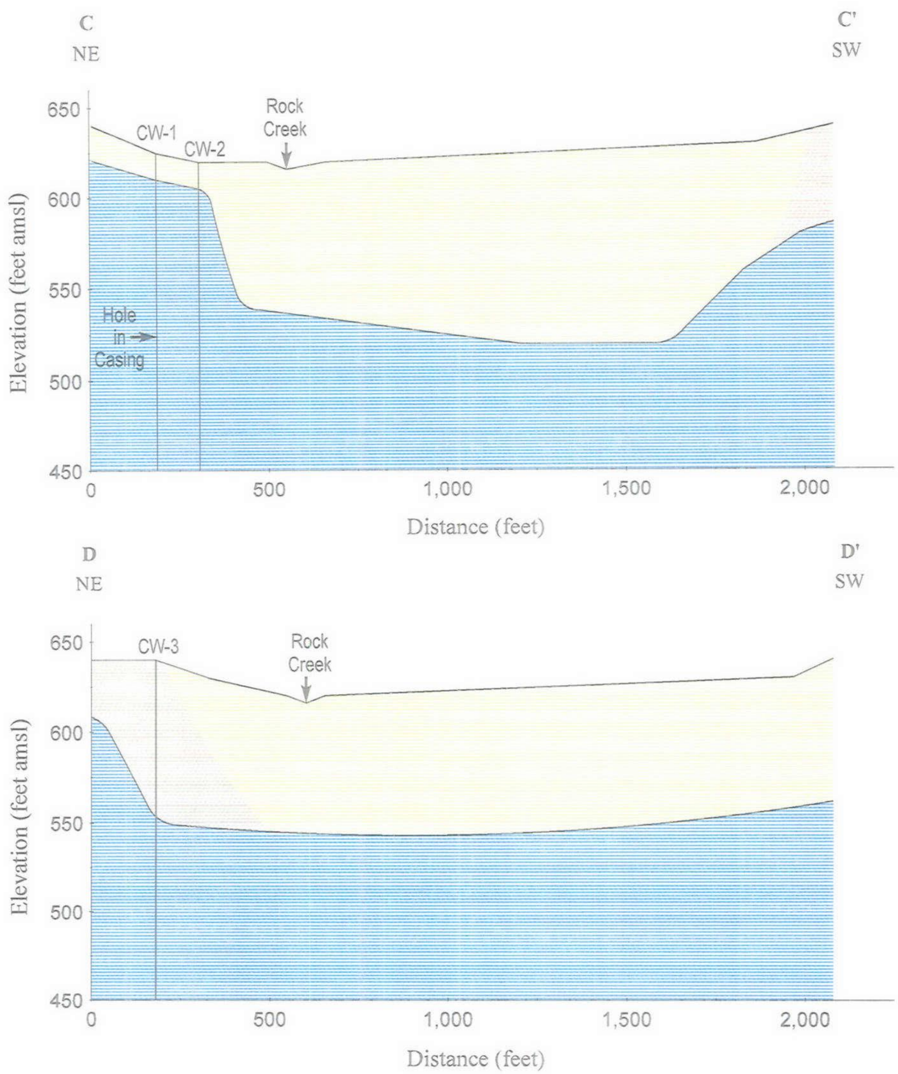
CROSS SECTION B-B'
Morrison, Illinois
709 West Wall Street, Morrison, Illinois

Designed:	AH	Project Number:	177-AA-2	Figure
Drawn:	DH	File:	177AA2_9	5
Checked:	KB	Revision:	xxxxx	Date: 11/04/14



Legend:
- Carbonate Bedrock
- Valley Fill
- Upland Deposits

Note: 5X Vertical Exaggeration

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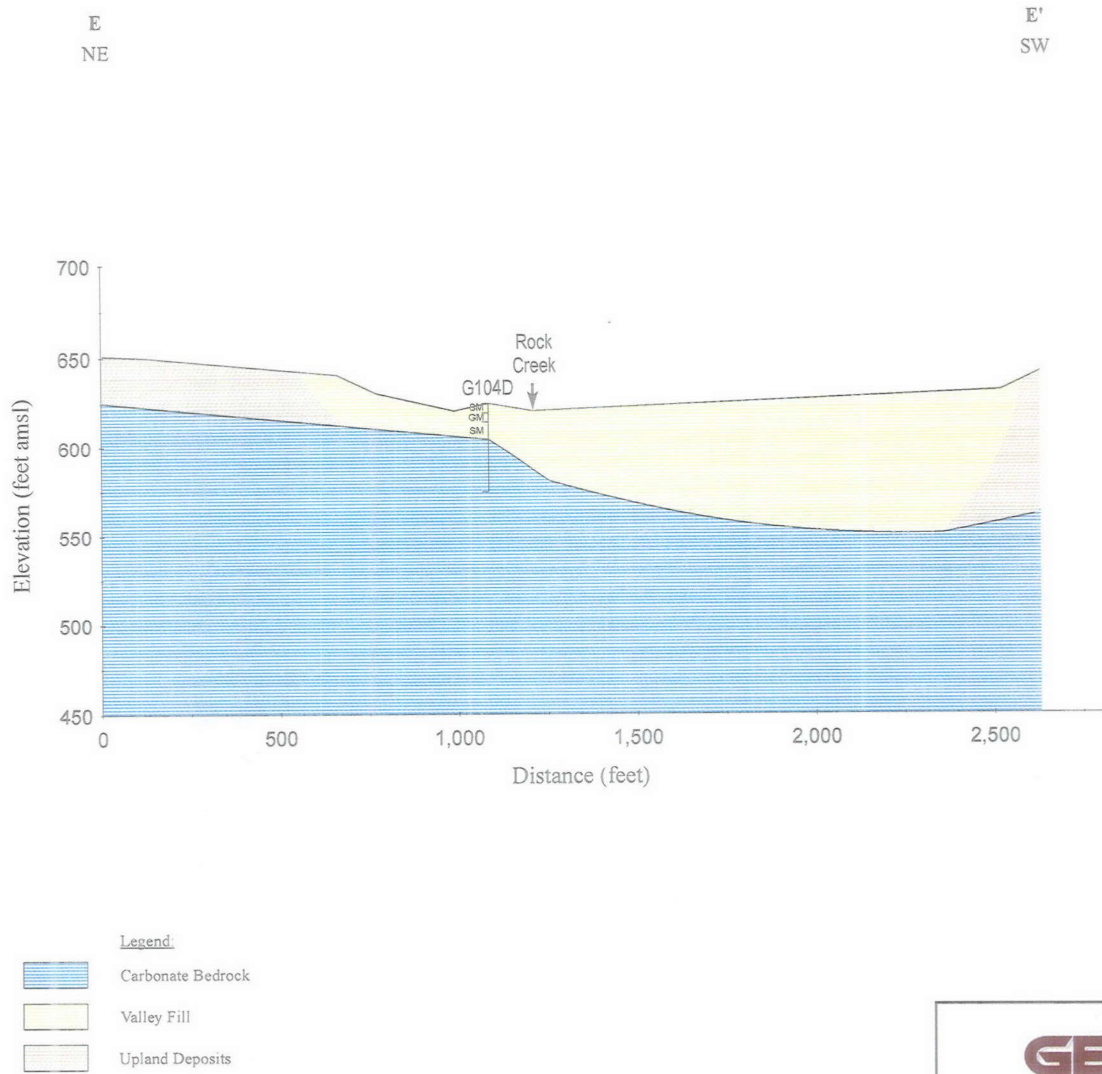
CROSS SECTIONS C-C' AND D-D'
Morrison, Illinois
709 West Wall Street, Morrison, Illinois

Designed:	AH	Project Number:	177-AA-2	Figure
Drawn:	DH	File:	177AA2_10	6
Checked:	KB	Revision:	xxxxx	Date: 11/04/14



Note: 5X Vertical Exaggeration

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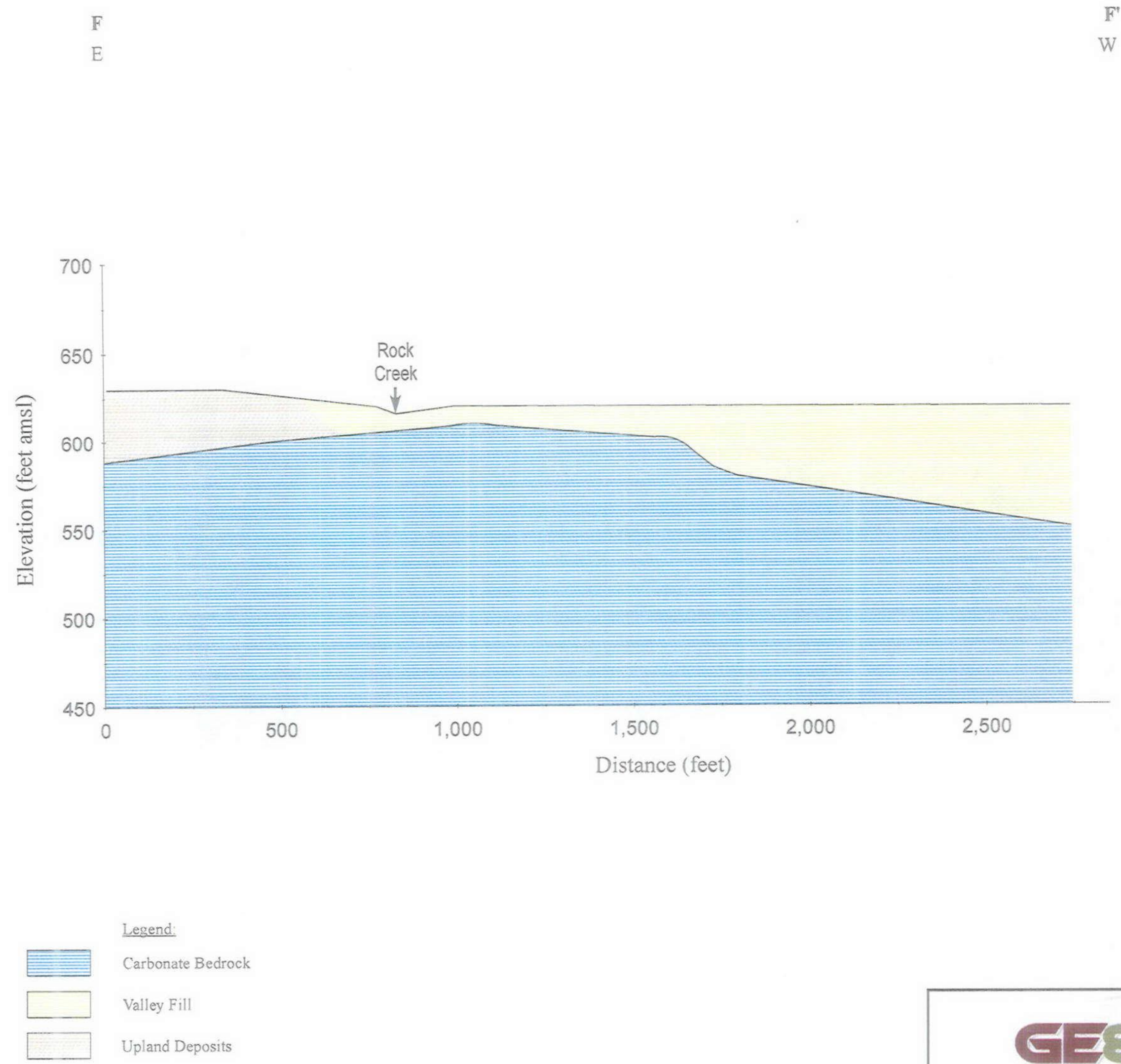
CROSS SECTION E-E'
Morrison, Illinois
709 West Wall Street, Morrison, Illinois

Designed:	AH	Project Number:	177-AA-2	Figure
Drawn:	DH	File:	177AA2_11	7
Checked:	KB	Revision:	xxxxx	Date: 11/04/14



Note: 5X Vertical Exaggeration

GENESIS ENGINEERING & REDEVELOPMENT
351 Ruess Road · Ripon, CA 95366
Tel: 209.599.2004 · Fax: 209.433.3990
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CROSS SECTION F-F'
Morrison, Illinois
709 West Wall Street, Morrison, Illinois

Designed:	AH	Project Number:	177-AA-2	Figure
Drawn:	DH	File:	177AA2_12	8
Checked:	KB	Revision:	xxxxx	Date: 11/04/14

<u>Exhibit 3</u>

Illinois State Geological Survey
Well Log for Prairie Ridge Golf Course Supply Well
and Video Camera Log from MWH's 2013 FSI Report

ILLINOIS STATE GEOLOGICAL SURVEY

Non Potable Water Well	Top	Bottom
top soil	0	2
yellow sandy clay	2	5
yellow clay & gravel	5	35
Niagara	35	180
Total Depth		**180**

Casing: 6" STEEL T&C 19.45# from 0' to 102'

Grout: CLAY from 0 to 102.

Size hole below casing: 6"

Water from Niagara at 35' to 180'.
Static level 3' below casing top which is 2' above GL
Pumping level 40' when pumping at 0 gpm for 2 hours

Remarks: pump installed by others

Owner Address: W. Morris St. Morrison, IL
Location source: Location from permit

Permit Date: November 2, 1992 **Permit #:**

COMPANY Lyons, Glenn L
FARM Morrison Country Club
DATE DRILLED November 9, 1992 **NO.**
ELEVATION 0 **COUNTY NO.** 21685
LOCATION SE SE NW
LATITUDE 41.808962 **LONGITUDE** -89.989322
COUNTY Whiteside **API** 121952168500 13 - 21N - 4E

Notes:	
	Inspection conducted on November 6, 2012 by Layne Christensen - Aurora, Il
	Measured depth: 180 ft.
	Pump depth: 80 ft.
	Footage elevations from TOC
	TOC approximately 10" above grade
	Measured depth: 180 ft.
	Pump depth: 80 ft.
	Static water level 4.5 feet
	Running water used to flush debris from well casing during inspection
	6-inch casing
	Joints - threaded coupled pipe
	Heavy debris obscuring camera from below 86 ft.

Video time	Footage	Obsevations
0:00	4.7	Start inspection
2:35	22	Casing joint
3:50	42	Casing joint
4:50	62	Casing joint
5:50	82	Casing joint
6:05	86	Heavy debris lining casing/borehole
7:00	89	Camera obscured by debris - inspection halted at 89 ft.
8:40	89	Inspection resumed from 89 ft.
9:50	104	Camera obscured by debris - inspection halted at 104 ft.
18:00	102	Inspection resumed from 102 ft.
19:05	116	Possible break/small void in bedrock formation
20:30	136	Camera obscured by debris - inspection halted at 136 ft.
25:45	136	Inspection resumed from 136 ft. Low visibility
27:45	174	Camera obscured by debris - inspection halted at 174 ft.
31:20	174	Inspection resumed from 174 ft. Low visibility
32:00	180	Soft bottom reached at 180 ft.
32:30	180	Begin reverse filming
34:45	116	Possible break/small void in bedrock formation
37:00	102	End of casing at 102 ft. - halted for second look at 102 ft
38:30	102	End of casing at 102 ft.
44:54	0	End of inspection

Exhibit 4

Table of TCE Data in Monitoring Well MW-105D
Prepared by GER

TABLE 1

TCE Concentrations Through Time
With Passive Bag Samples and Duplicate
Samples Denoted

Well	Date	TCE (ppb)	Qualifier
G-105D	6/28/1987	14,000	
	1/8/1988	1,600	
	4/21/1989	NS	
	9/18/1991	16,000	
	12/10/1991	16,000	
	3/8/1992	21,000	
	6/1/1992	20,000	
	9/9/1992	12,000	
	12/4/1992	14,000	
	3/16/1993	14,000	
	6/24/1993	8,800	
	9/16/1993	8,400	
	12/16/1993	11,000	
	3/16/1994	10,000	
	6/15/1994	4,600	
	9/22/1994	6,000	
	11/29/1994	9,600	
	3/27/1995	8,400	
	6/15/1995	6,000	
	9/15/1995	4,000	
	12/7/1995	6,400	
	6/14/1996	5,700	
	9/19/1996	3,800	
	12/11/1996	5,700	
	3/10/1997	7,000	
	9/22/1997	4,900	
	9/22/1997	4,700	DUP
	4/7/1998	5,500	
	4/7/1998	5,100	DUP
	11/13/1998	6,400	
	11/13/1998	6,100	DUP
	2/4/1999	6,400	
	2/4/1999	6,300	DUP
	6/16/1999	4,300	DUP
	6/16/1999	4,300	
	6/12/2000	5,400	
	8/22/2000	3,500	
	6/20/2001	3,400	
	11/7/2001	3,500	
	6/27/2002	1,600	
	6/27/2002	250	PB
	11/25/2002	2,600	
	11/25/2002	2,500	DUP
	11/25/2002	120	PB
	11/25/2002	120	PB, DUP
	6/11/2003	260	PB
	6/11/2003	4,500	
	10/18/2004	110	PB
	11/7/2005	26	PB
	11/7/2006	30	PB
	10/30/2007	26	PB
	1/5/2008	13	PB
	1/5/2008	12	PB, DUP
	1/21/2012	2.65	PB
	6/11/2013	210	PB
	6/11/2013	180	PB, DUP
	9/25/2013	170	PB
	9/25/2013	130	PB, DUP
	2/13/2014	23	PB
	2/13/2014	23	PB, DUP

Note:
-"NS" - Not Sampled
-"**DUP**" - Duplicate Sample
-"**PB**" - Passive Bag Sample
-"**ppb**"- Parts Per Billion

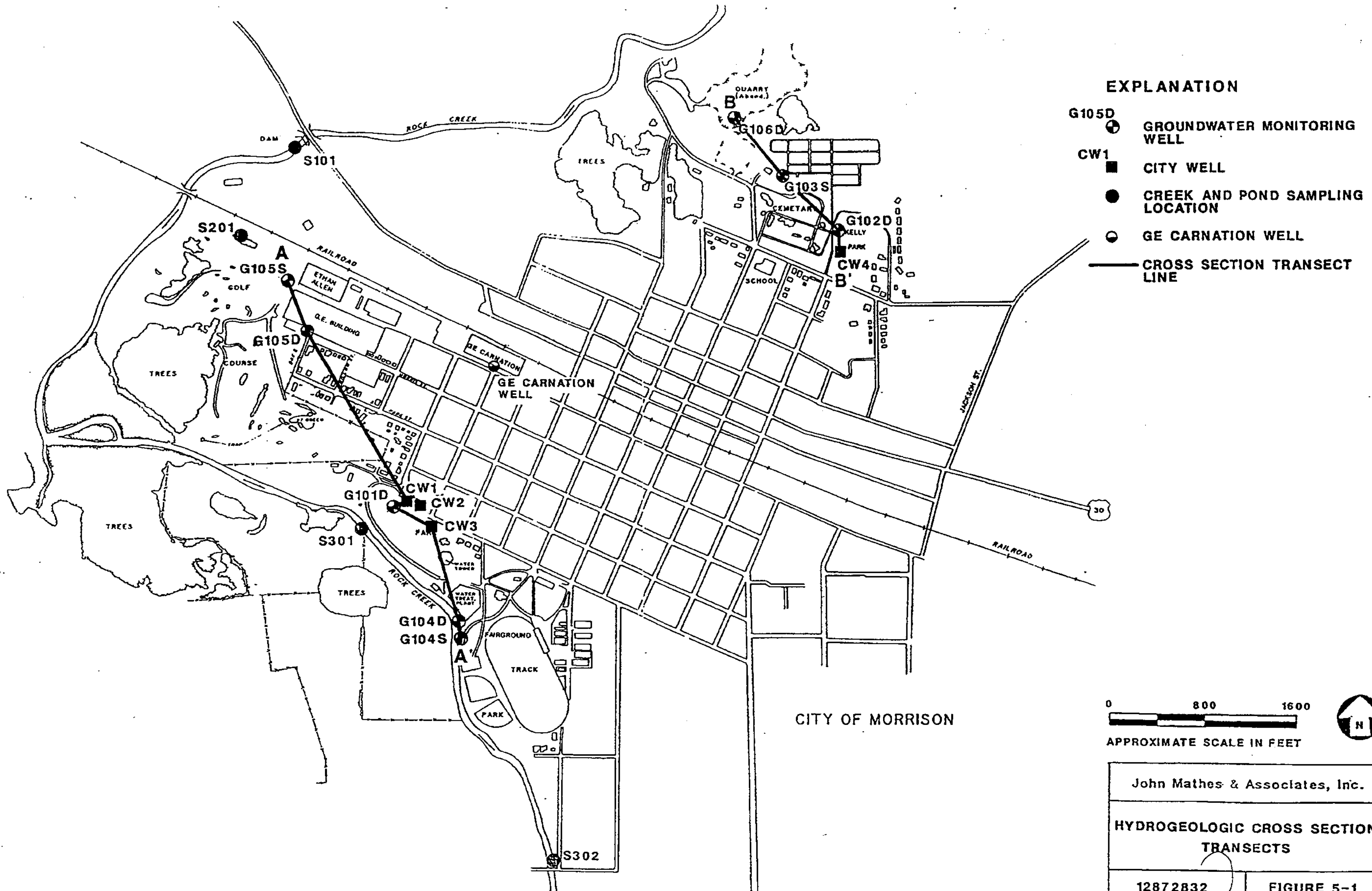
Initial samples were collected by bailer methods. Some time in 1990s, low flow sampling methods were initiated. In 2002, passive diffusion bag testing began. Only passive diffusion bag methods have been used since 2004.

APPENDIX D

SELECTED MATERIALS FROM
GE AND IEPA REPORTS AND DOCUMENTS

<u>Exhibit 1</u>

Selected Materials from
Mathes' Phase I Remedial Investigation Report
(dated October 1987)

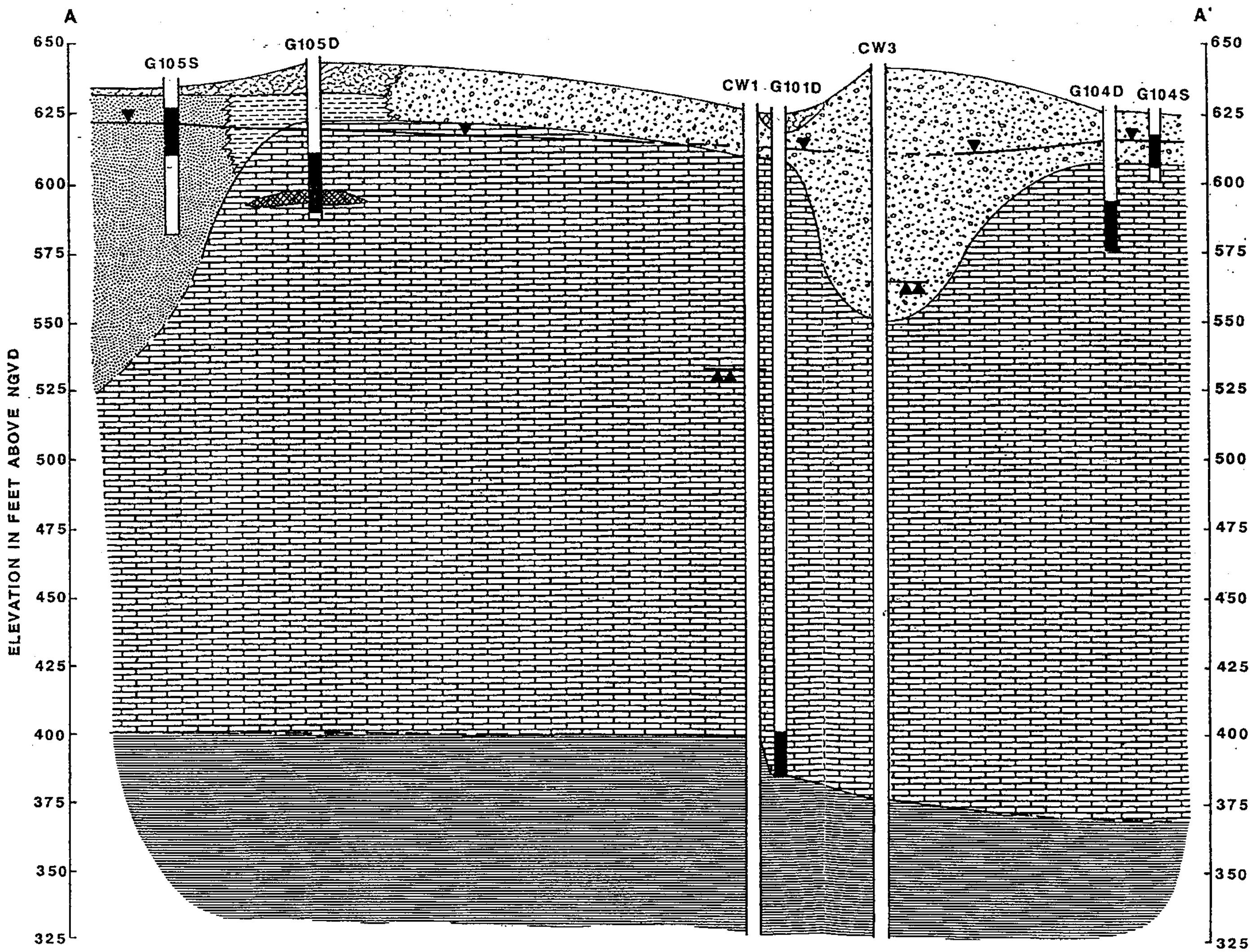


John Mathes & Associates, Inc.

HYDROGEOLOGIC CROSS SECTION TRANSECTS

12872832

FIGURE 5-1



EXPLANATION

G105S GROUNDWATER MONITORING WELL WITH SCREEN

SHALLOW AQUIFER WATER LEVEL ELEVATION

DEEP AQUIFER POTENTIOMETRIC SURFACE (IN 1951)

FILL

SAND AND GRAVEL

TILL

SAND

CLAY

NIAGARAN-ALEXANDRIAN DOLOMITE

MAQUOKETA SHALE

NOTE

DATUM IS NATIONAL GEODETIC VERTICAL DATUM (NGVD)

This profile was developed by interpolation between widely spaced boreholes. Only at the borehole locations should it be considered as an approximately accurate representation and then only to the degree implied by the notes on the drilling logs.

VERTICAL SCALE IN FEET 0 40 80

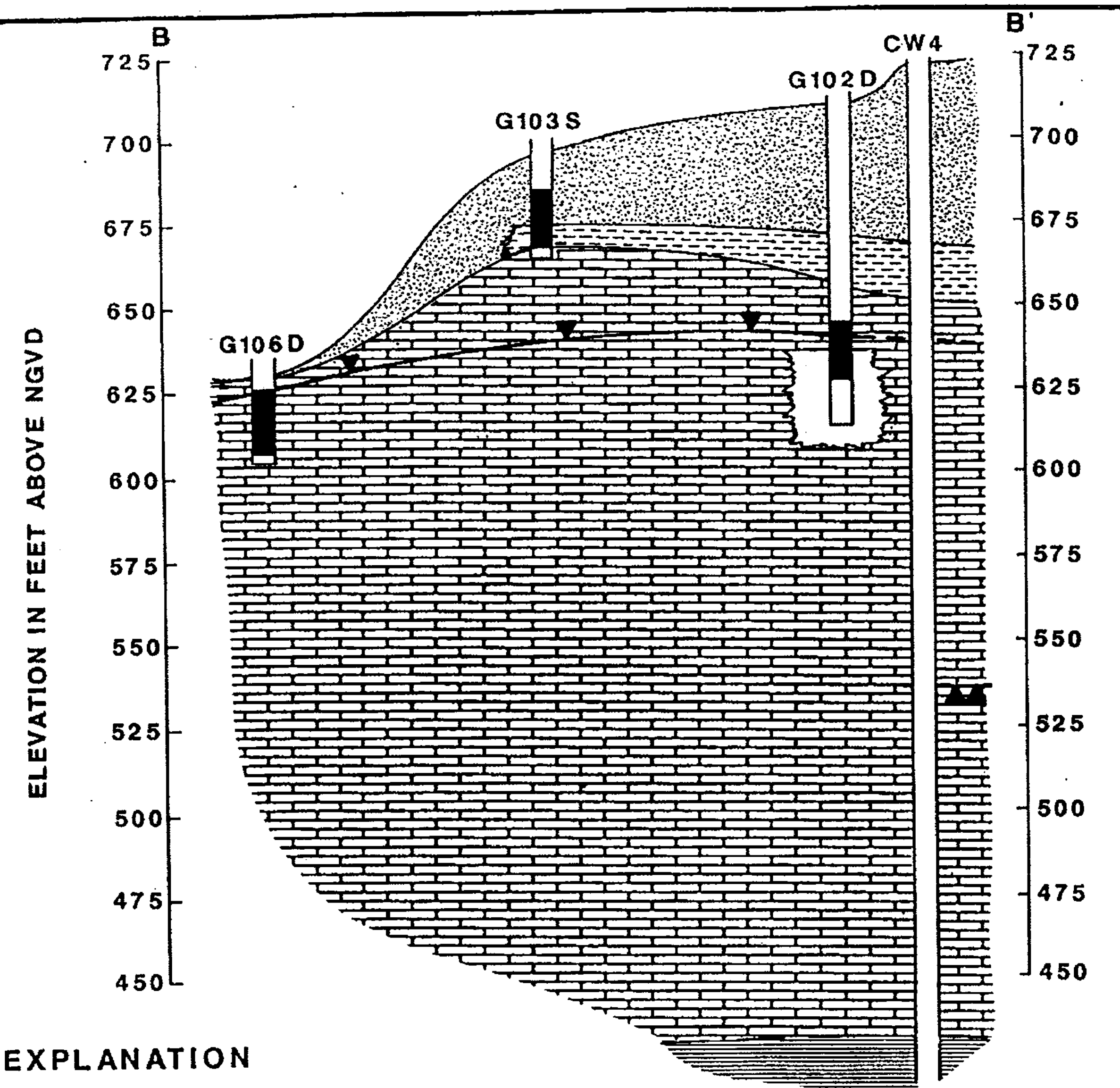
0 400 800 HORIZONTAL SCALE IN FEET

John Mathes & Associates, Inc.

HYDROGEOLOGIC CROSS SECTION A – A'

12872832

FIGURE 5-2



EXPLANATION

G103S GROUNDWATER MONITORING WELL WITH SCREEN

SHALLOW AQUIFER WATER LEVEL ELEVATION

DEEP AQUIFER POTENTIOMETRIC SURFACE (IN 1951)

LOESS

TILL

VOID

NIAGARAN-ALEXANDRIAN DOLOMITE

MAQUOKETA SHALE

NOTE

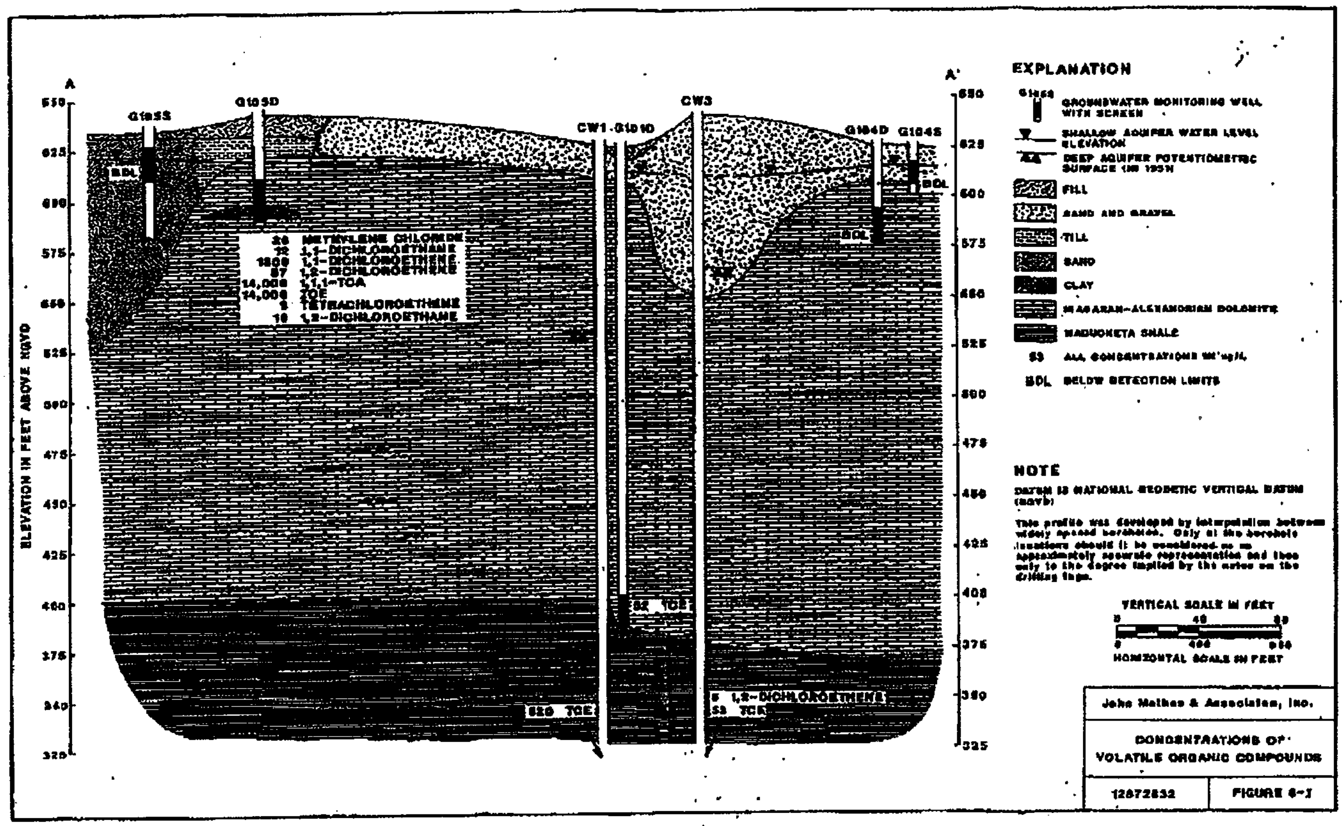
This profile was developed by interpolation between widely spaced boreholes. Only at the borehole locations should it be considered as an approximately accurate representation and then only to the degree implied by the notes on the drilling logs.

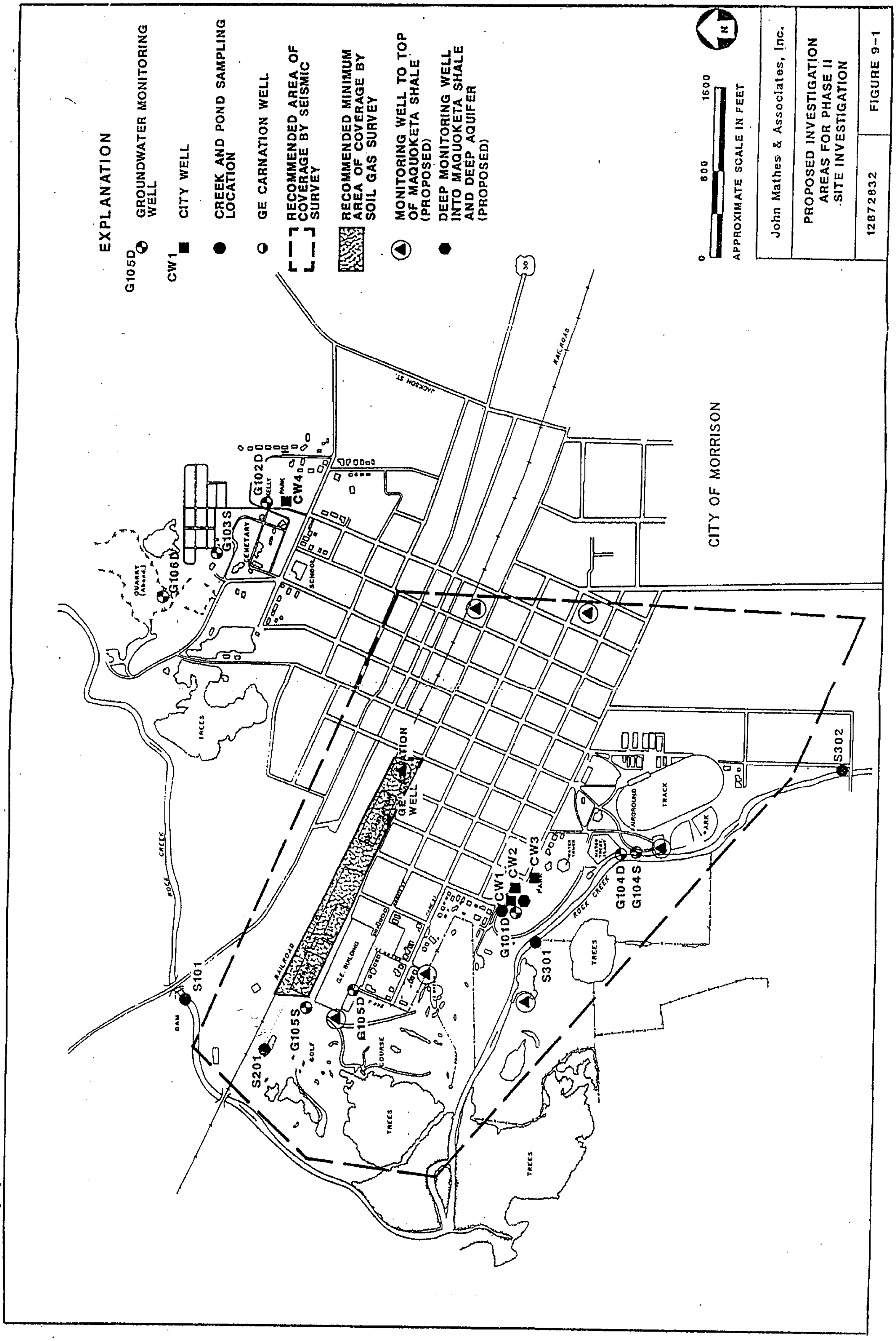
VERTICAL SCALE IN FEET
0 50 100

0 400 800
HORIZONTAL SCALE IN FEET

DATUM IS NATIONAL GEODETIC VERTICAL DATUM (NGVD)

John Mathes & Associates, Inc.	
HYDROGEOLOGIC CROSS SECTION B - B'	
12872832	FIGURE 5-3


A
A'
ELEVATION IN FEET ABOVE NGVD
CW3
BDL
METHYLENE CHLORIDE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,2-DICHLOROETHENE
14,000 1,1,1-TCA
14,000 TCE
TETRACHLOROETHENE
1,2-DICHLOROETHANE
TCE
1,2-DICHLOROETHENE
EXPLANATION
GROUNDWATER MONITORING WELL WITH SCREEN
SHALLOW AQUIFER WATER LEVEL ELEVATION
DEEP AQUIFER POTENTIOMETRIC SURFACE
FILL
SAND AND GRAVEL
TILL
SAND
CLAY
NIAGARAN-ALEXANDRIAN DOLOMITE
MAQUOKETA SHALE
BDL BELOW DETECTION LIMITS
NOTE
DATUM IS NATIONAL GEODETIC VERTICAL DATUM (NGVD)
This profile was developed by interpolation between widely spaced boreholes. Only at the borehole locations should it be considered as an approximately accurate representation and then only to the degree implied by the notes on the drilling logs.
VERTICAL SCALE IN FEET
HORIZONTAL SCALE IN FEET
John Mathes & Associates, Inc.
CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS
12872832
FIGURE 6-7



John Mathes & Associates, Inc.

PROPOSED INVESTIGATION AREAS FOR PHASE II SITE INVESTIGATION

12872832

FIGURE 9-1

Table 2-2

PRIVATE WELL SURVEY LIST

CITY OF MORRISON, ILLINOIS
JULY 2, 1987

Location Number	Owner's Name/Address	Approximate Location	Well Information Supplied by Owner
1	[redacted]	SW of Fairgrounds	Drilled Well TD-40' Basement Pump Rusted Tested by Chicago-EPA Tested by Health Dept.
2	[redacted]	SW of Fairgrounds	Well TD-Unknown Well Located by Barn (Northside)
3	[redacted]	W of Golfcourse	No Well Information
4	D.O.T. Garden Plain Rd. Supr. Harvey Williams (In Dixon)	NW of Hwy. 30 and S101	No Well Information?
5	[redacted]	NW of Morrison	Well TD-Approximate-70' Cased-depth unknown
6	[redacted]	Next to Old Mill Hwy. 30 and S101	No Well Information?
7	Mt. Pleasant Township Garage	N of Quarry	No well information
8	[redacted]	N of Quarry N of Creek	New Well 11 or 12 years old

TD = Total depth of well.

Note: Wells surveyed by Kerry Keller of IEPA and Craig Maxeiner of John Mathes & Associates, Inc., on July 2, 1987.

Table 5-1

MONITORING WELL AND GEOLOGIC INFORMATION

CITY OF MORRISON, ILLINOIS
JULY, 1987

Well Number	Ground Surface Elev.	Total Depth Elev.	Water Level Elev.*	Top of Rock Elev.	Top of Shale Elev.	Screened Interval
G101D	623.9	384.9 (239)	612.6 (11.3)	607.9 (16)	386.9 (237)	384.9-400.9 16 **
G102D	711.7	612.7 (99)	638.3 (73.3)	656.2 (55.5)	N/A N/A	629.5-645.4 15.9**
G103S	696.7	664.7 (32)	DRY	665.9 (30.8)	N/A N/A	669.2-685.2 16 **
G104S	624.3	600.4 (23.9)	614.4 (9.8)	605.3 (19)	N/A N/A	606.6-617.1 10.5**
G104D	624.6	574.6 (50)	615.5 (9.1)	605.6 (19)	N/A N/A	575.6-591.6 16 **
G105S	634.2	581.2 (53)	621.1 (13.1)	N/A N/A	N/A N/A	610.2-626.2 16 **
G105D	642.1	586.2 (55.9)	619.5 (22.6)	623.1 (19)	N/A N/A	594.0-609.9 15.9**
G106D	632.4	604.4 (28)	622.9 (9.4)	628.4 (4)	N/A N/A	609.9-625.9 16 **
CW 1	625	(-1645)	N/A N/A	610 (15)	400 (225)	---------- ----------
CW 3	640	(-1625)	562 (78)	551 (89)	383 (257)	---------- ----------
CW 4	715	(-1769)	535 (180)	651 (64)	347 (368)	---------- ----------
GE WELL	670	(-1101)	610 (60)	570 (100)	363 (307)	---------- ----------
TH1	640	564 (76)	N/A N/A	565 (75)	N/A N/A	---------- ----------
TH2	645	492 (153)	N/A N/A	493 (152)	N/A N/A	---------- ----------
TH3	635	605 (30)	N/A N/A	627 (8)	N/A N/A	---------- ----------
TH4	635	585.5 (49.5)	N/A N/A	587 (48)	N/A N/A	---------- ----------
TH5	630	600 (30)	N/A N/A	616 (14)	N/A N/A	---------- ----------
TH6	625	552 (73)	N/A N/A	552? (73?)	N/A N/A	---------- ----------

* = Measured prior to sampling.
** = Length of screen interval.
CW 1 = City Well.
G101D = Mathes-installed wells.
N/A = Data not available.
TH1 = City test borehole.
Note: Elevations are in feet above mean sea level. All numbers in parentheses are in feet below ground surface.

SEP/87/0173s/1

Table 6-1

DISCRETE-INTERVAL GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

CITY OF MORRISON, ILLINOIS
JUNE 20-21, 1987

Sample Number	Depth (ft.)	Relative Vapor Conc. (NDU)	Compound	Concentration (ug/L) Measured	Detection Limit
G101D-1	234-211	3	Methylene chloride	42	5
			Acetone	17 B	10
			TCE	140	5
			Toluene	4 J	5
G101D-2	213-190	1.5	Acetone	11 B	10
			TCE	110	5
			Toluene	2 J	5
G101D-3	193-170	0	Acetone	15 B	10
			TCE	53	5
G101D-4	153-130	0	Acetone	12 B	10
			1,1,1-TCA	5	5
			TCE	55	5
G101D-5	113- 90	0	Acetone	13 B	10
			TCE	70	5
G101D-6	53- 30	0	Acetone	3 JB	10
			TCE	36	5
Trip Blank	--	--	Acetone	8 JB	10

NDU = needle deflection units measured with HNU.
B = Compound was also found in the blank.
J = Estimated value, below detection limits.
TCE = Trichloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
NOTE: Only compounds detected in the samples are listed.

Source: Mathes, 1987.

Table 6-2, Continued

COMPOSITE GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

CITY OF MORRISON, ILLINOIS
JUNE 29-30, 1987

Sample Number	Compound	Concentration (ug/L) Measured	Detection Limit
City Well #3	1,2-Dichloroethene	6	5
	TCE	53	5
City Well #3 (Duplicate)	1,2-Dichloroethene	6	5
	TCE	56	5
City Well #4	(None)		
Bailer blank	Acetone	9 JB	10
	Methylene chloride	5 B	5
Trip Blank #1	Acetone	5 JB	10
	Methylene chloride	5 B	5
Trip Blank #2	(None)	BDL	-

B = Compound was also found in the blank.
J = Estimated value, below detection limits.
D = Compound was identified in an analysis at a secondary dilution factor.
BDL = Below detection limit.
TCE = Trichloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
Note: Only compounds detected in the samples are listed.

Source: Mathes, 1987.

Table 6-2

COMPOSITE GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

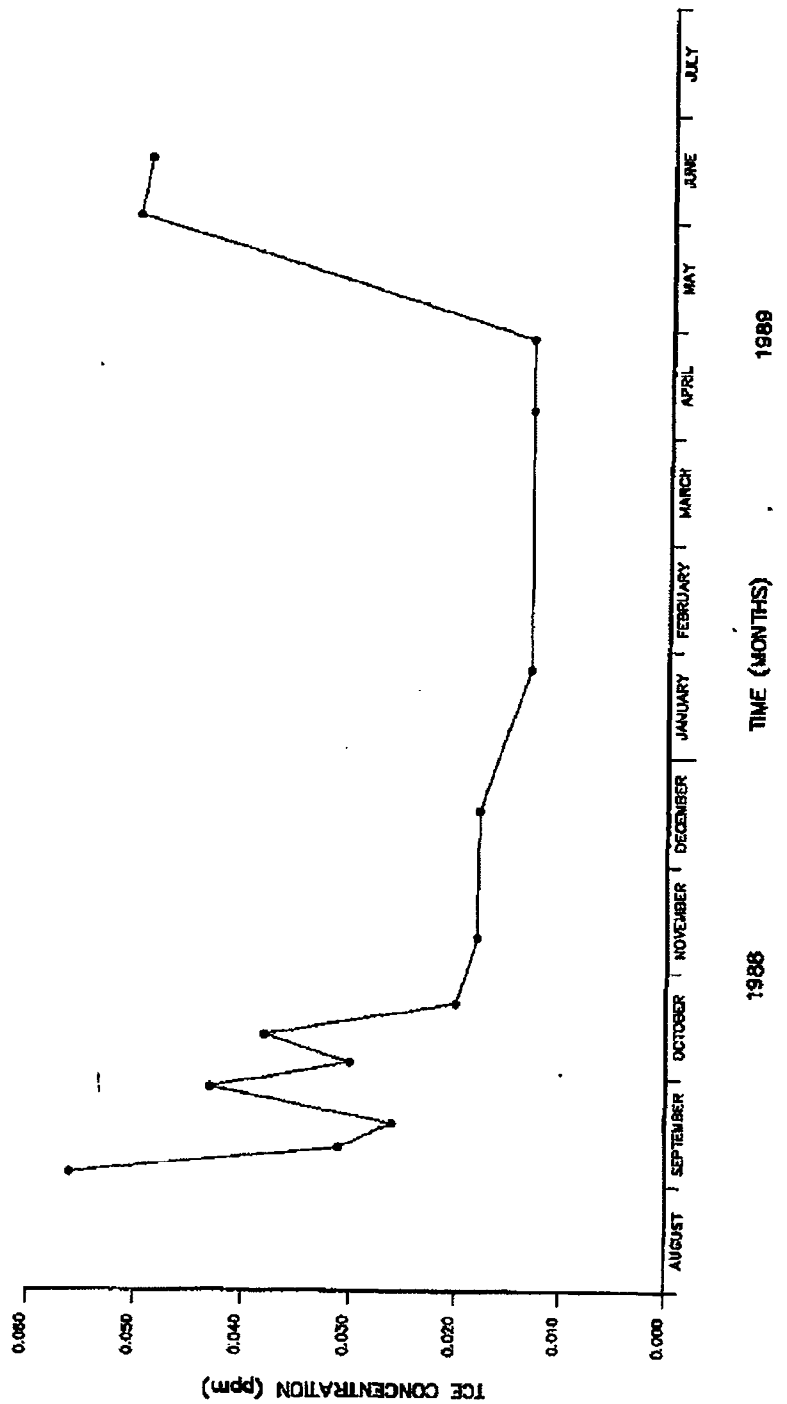
CITY OF MORRISON, ILLINOIS
JUNE 29-30, 1987

Sample Number	Compound	Concentration (ug/L) Measured	Detection Limit
G101D	Acetone	7 J	10
	TCE	52 B	5
G102D	Acetone	5 JB	10
G104S	(None)	BDL	-
G104D	(None)	BDL	-
G105S	Acetone	5 JB	10
	Methylene chloride	3 J	5
G105D	Acetone	18 B	10
	Methylene chloride	26	5
	1,1-Dichloroethane	12 530	5
	1,2-Dichloroethane	16 11	5
	1,1-Dichloroethene	1,800 D 510	500
	1,2-Dichloroethene	57 200	5
	Chloroform	2 J	5
	1,1,1-TCA	14,000 D 730	500
	TCE	14,000 D 1000	500
	Tetrachloroethene	9	5
G105D (Duplicate)	Acetone	500 JB	1000
	Methylene chloride	200 J	500
	1,1-Dichloroethene	2,200	500
	TCE	16,000	500
	1,1,1-TCA	17,000	500
G106D	(None)	BDL	-
GE Well	Acetone	100 B	10
	Methylene chloride	5	5
	1,1,1-TCA	40	5
	Tetrachloroethene	2 J	5
City Well No. 1	1,2-Dichloroethene	4 J	5
	TCE	620 D	50
	1,1,1-TCA	3 J	5
	Tetrachloroethene	2 J	5

B = Compound was also found in the blank.
J = Estimated value, below detection limits.
D = Compound was identified in an analysis at a secondary dilution factor.
BDL = Below detection limit.
TCE = Trichloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
Note: Only compounds detected in the samples are listed.

Exhibit 2

Selected Materials from
Canonie's Phase II Remedial Investigation Report
(dated July 1989)



TCE INFLUENT CONCENTRATION
CITY WELL CW-3
MORRISON, ILLINOIS
FIGURE 4
Canonie Environmental

88-159-B40

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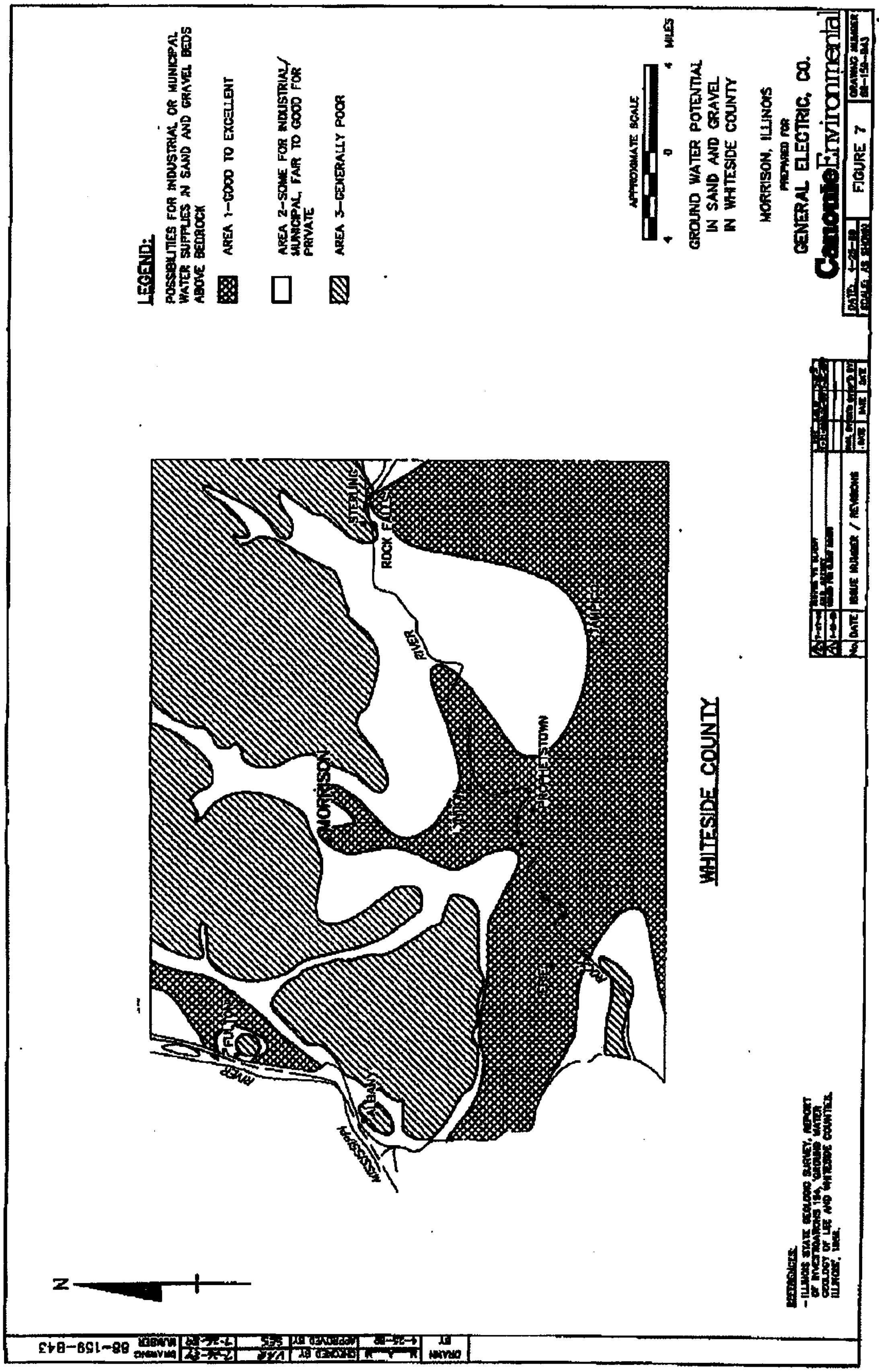
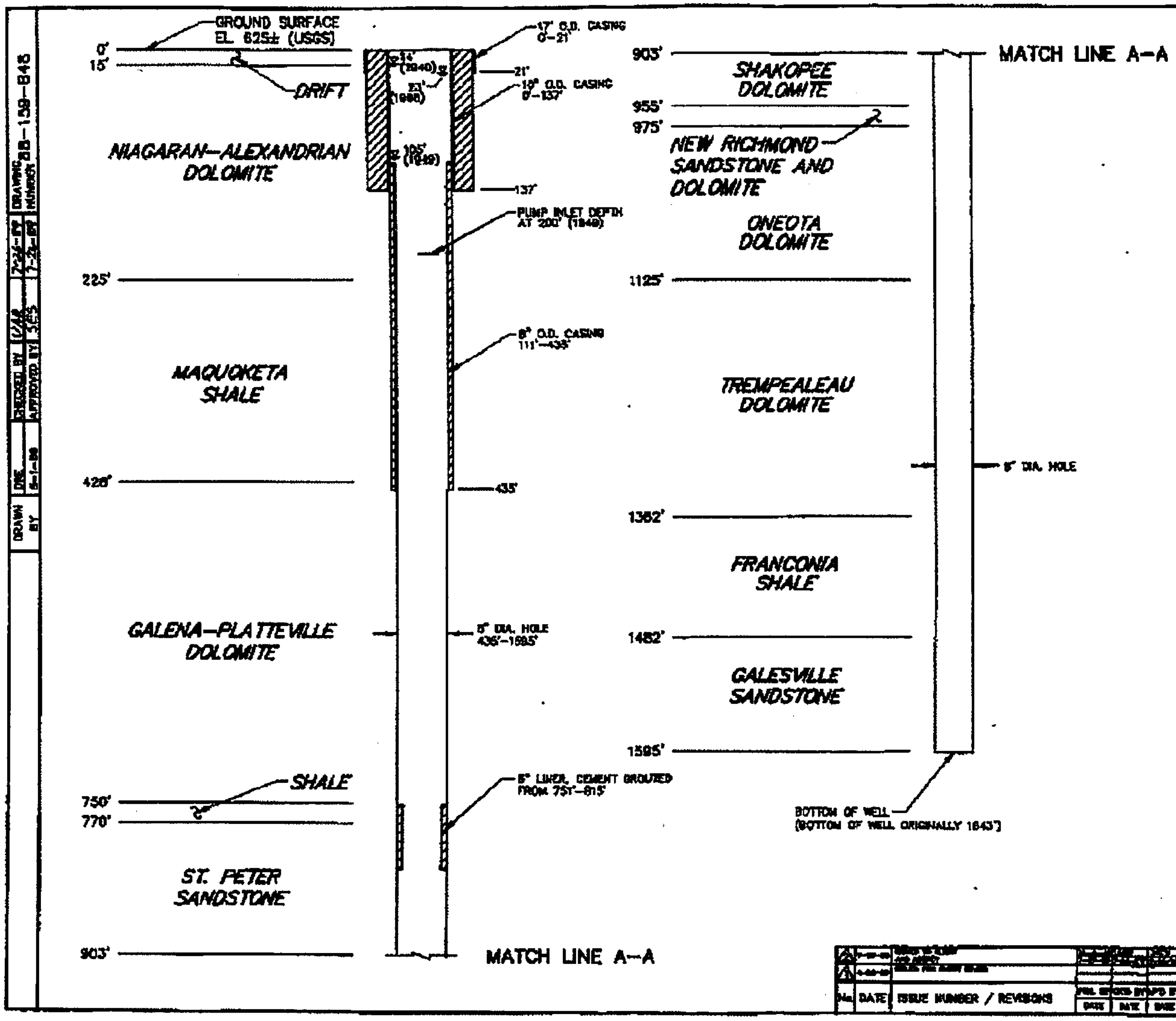


printed 07/11/2013 10:45AM by Sharon.Dowson p. 110/348



NOTES:

1. THE ROCK STRATA IS PLOTTED FROM ILLINOIS STATE WATER SURVEY BULLETIN 40.
2. DRILLING HISTORY: (INFORMATION FROM ILLINOIS STATE WATER SURVEY BULLETIN 40).
   A. THE CW–1 WELL (EAST WELL) WAS INSTALLED IN 1897 TO A DEPTH OF 1,643 FEET BY L. WILSON CO., CHICAGO. THE WELL WAS DRILLED 8–INCH–DIAMETER AT THE TOP AND 6–INCH–DIAMETER AT THE BOTTOM (THE CHANGE POINT FROM 8–INCH TO 6–INCH IS NOT SHOWN).
   B. IN 1909, THE WELL WAS SLOUGHED IN AND FILLED TO 900 FEET.
   C. IN 1938, THE WELL WAS REAMED AND CLEANED BY C.W. VARNER WELL CO., DUBUQUE, IOWA AND 3 CASINGS WERE INSTALLED:

      17–INCH PIPE: 0–21 FEET
      10–INCH PIPE: 0 TO 137 FEET
      8–INCH PIPE: 111 TO 435 FEET
   D. THE WELL FLOW DECREASED BECAUSE CAVING WAS FOUND AT DEPTHS OF 781 AND 805 FEET. REPAIRS WERE PERFORMED BY C.W. VARNER CO. IN 1940. A 6–INCH LINER, 84 FEET LONG FROM 731 TO 815 FEET, WAS SET IN 15 TO 20 FEET OF CEMENT GROUT.
   E. IN 1949, THE FLOW WAS ABOUT 400 GPM WITH A 30 HP PUMP INLET AT 200 FEET, 75 FOOT DRAWDOWN FROM STATIC WATER LEVEL AT 105 FEET. SPECIFIC CAPACITY = 5.33 GPM/FT.
3. THIS WELL IS LOCATED 1,850 FEET NORTH, 300 FEET EAST OF SOUTHWEST CORNER OF SECTION 18, T21N, R5E.
4. THIS WELL IS CALLED "EAST WELL" OR "CITY WATER WELL No. 1".

RELEASABLE
MAY 0 3 2004
REVIEWER MD

VERTICAL SCALE: 100 0 100 FEET
HORIZONTAL SCALE: 15 0 15 INCHES

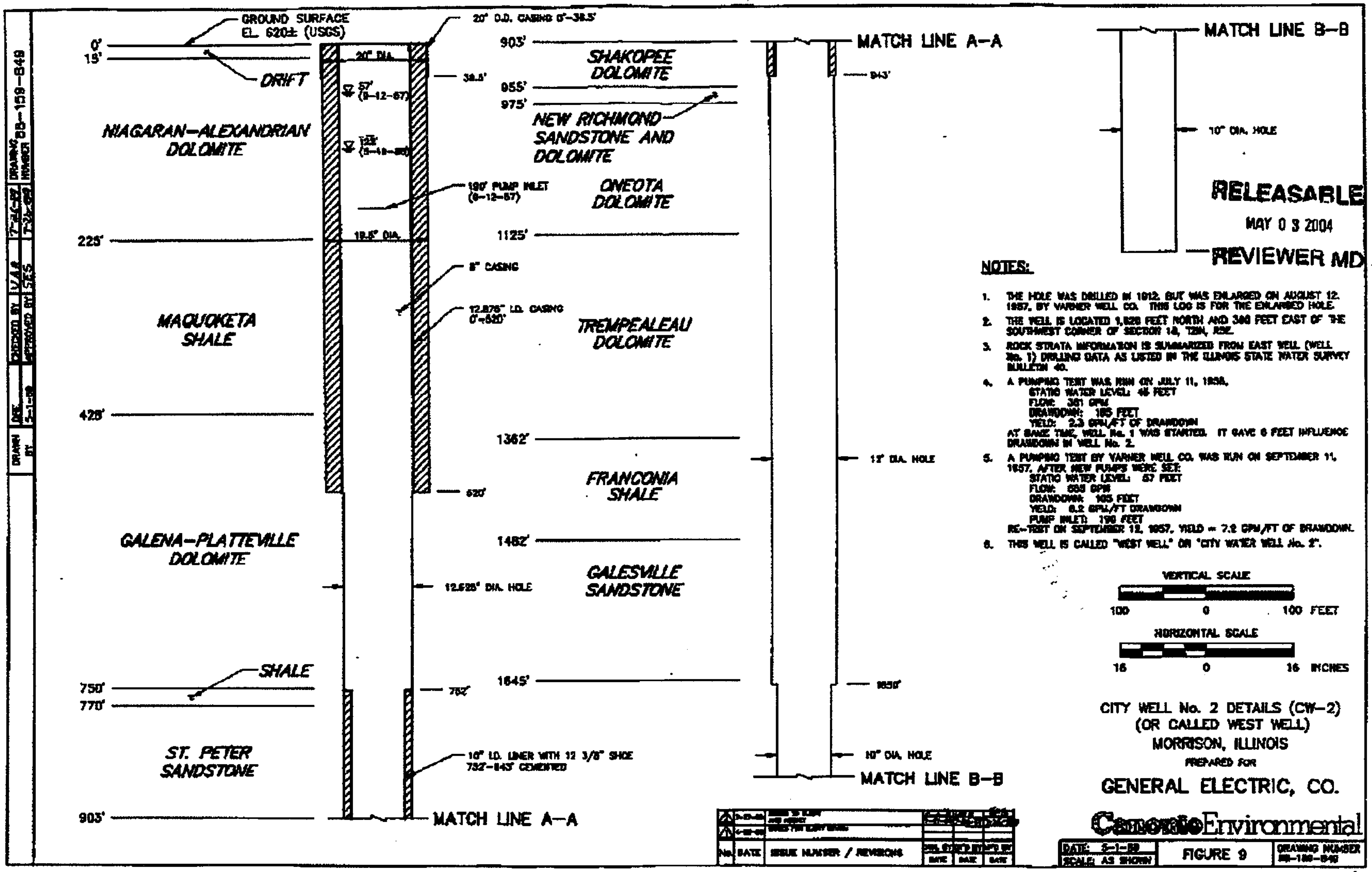
CITY WELL No. 1 DETAILS (CW–1)
(OR CALLED EAST WELL)
MORRISON, ILLINOIS
PREPARED FOR
GENERAL ELECTRIC, CO.

CanonieEnvironmental

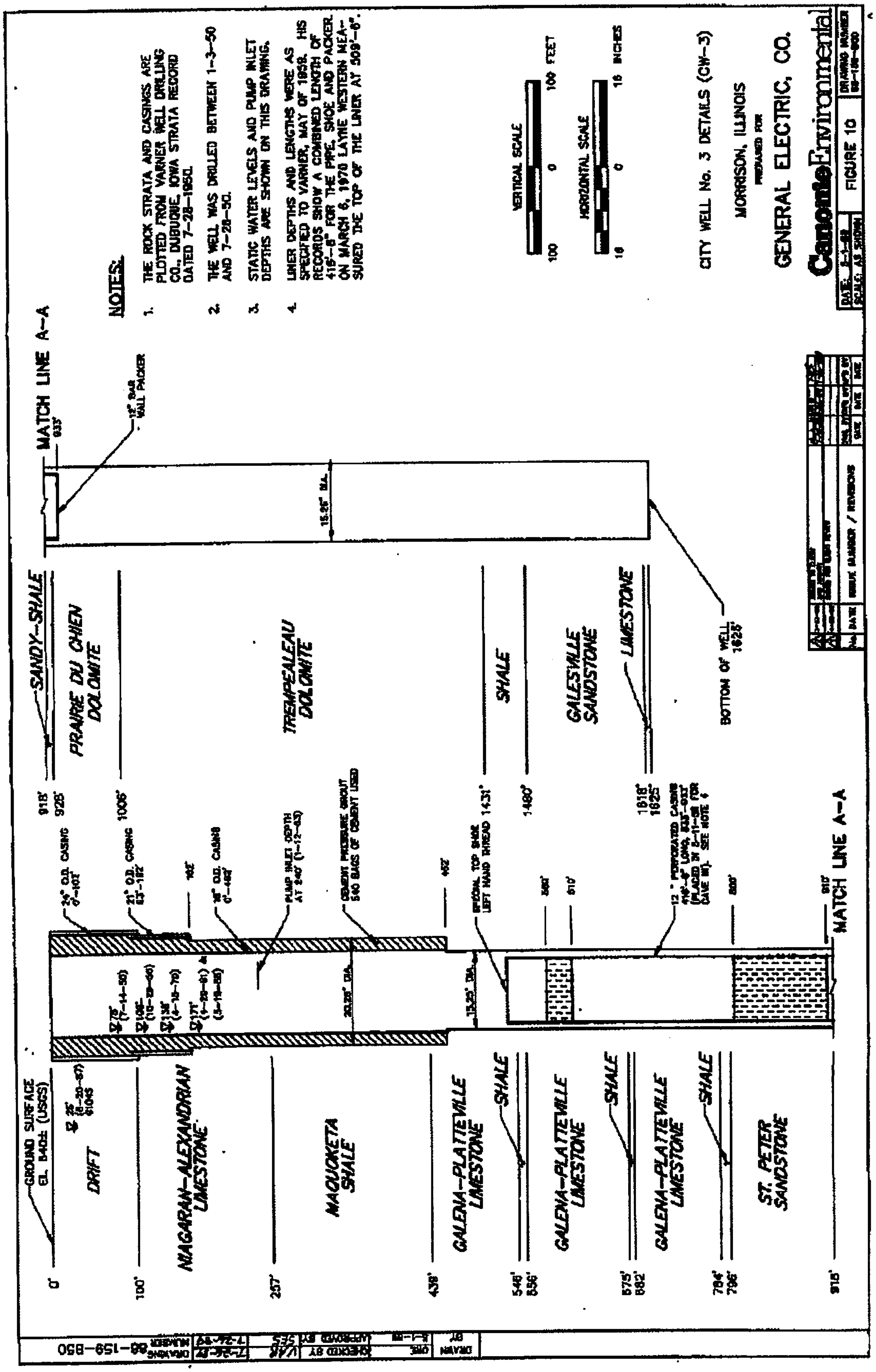
DATE: 8–1–89	FIGURE 8	DRAWING NUMBER 88–159–B48
SCALE: AS SHOWN		

No.	DATE	ISSUE NUMBER / REVISIONS

BEGGS000672


GROUND SURFACE EL. 620± (USGS)
DRIFT
NIAGARAN—ALEXANDRIAN DOLOMITE
MAQUOKETA SHALE
GALENA—PLATTEVILLE DOLOMITE
SHALE
ST. PETER SANDSTONE
0'
15'
225'
425'
750'
770'
903'
20" DIA.
19.5" DIA.
20" O.D. CASING 0'-38.5'
38.5'
190' PUMP INLET (9-12-57)
8" CASING
12.875" I.D. CASING 0'-520'
520'
12.625" DIA. HOLE
752'
10" I.D. LINER WITH 12 3/8" SHOE 732'-843' CEMENTED
MATCH LINE A—A
903'
955'
975'
1125'
1362'
1482'
1645'
SHAKOPEE DOLOMITE
NEW RICHMOND SANDSTONE AND DOLOMITE
ONEOTA DOLOMITE
TREMPEALEAU DOLOMITE
FRANCONIA SHALE
GALESVILLE SANDSTONE
843'
12" DIA. HOLE
1650'
10" DIA. HOLE
MATCH LINE B—B
10" DIA. HOLE
RELEASABLE
MAY 0 3 2004
REVIEWER MD
NOTES:
1. THE HOLE WAS DRILLED IN 1912, BUT WAS ENLARGED ON AUGUST 12, 1957, BY VARNER WELL CO. THIS LOG IS FOR THE ENLARGED HOLE.
2. THE WELL IS LOCATED 1,820 FEET NORTH AND 380 FEET EAST OF THE SOUTHWEST CORNER OF SECTION 18, T21N, R5E.
3. ROCK STRATA INFORMATION IS SUMMARIZED FROM EAST WELL (WELL No. 1) DRILLING DATA AS LISTED IN THE ILLINOIS STATE WATER SURVEY BULLETIN 40.
4. A PUMPING TEST WAS RUN ON JULY 11, 1938.
STATIC WATER LEVEL: 46 FEET
FLOW: 381 GPM
DRAWDOWN: 165 FEET
YIELD: 2.3 GPM/FT OF DRAWDOWN
AT SAME TIME, WELL No. 1 WAS STARTED. IT GAVE 6 FEET INFLUENCE DRAWDOWN IN WELL No. 2.
5. A PUMPING TEST BY VARNER WELL CO. WAS RUN ON SEPTEMBER 11, 1957, AFTER NEW PUMPS WERE SET:
STATIC WATER LEVEL: 57 FEET
FLOW: 650 GPM
DRAWDOWN: 105 FEET
YIELD: 6.2 GPM/FT DRAWDOWN
PUMP INLET: 190 FEET
RE-TEST ON SEPTEMBER 12, 1957, YIELD = 7.2 GPM/FT OF DRAWDOWN.
6. THIS WELL IS CALLED "WEST WELL" OR "CITY WATER WELL No. 2".
VERTICAL SCALE
100 0 100 FEET
HORIZONTAL SCALE
16 0 16 INCHES
CITY WELL No. 2 DETAILS (CW-2)
(OR CALLED WEST WELL)
MORRISON, ILLINOIS
PREPARED FOR
GENERAL ELECTRIC, CO.
Environmental
No. DATE ISSUE NUMBER / REVISIONS
DATE: 5-1-98
SCALE: AS SHOWN
FIGURE 9
DRAWING NUMBER 88-159-B49
DRAWN BY
CHECKED BY
APPROVED BY
DRAWING NUMBER 88-159-B49

printed 07/11/2013 ... AM by Sharon.Dowson p. 112/346



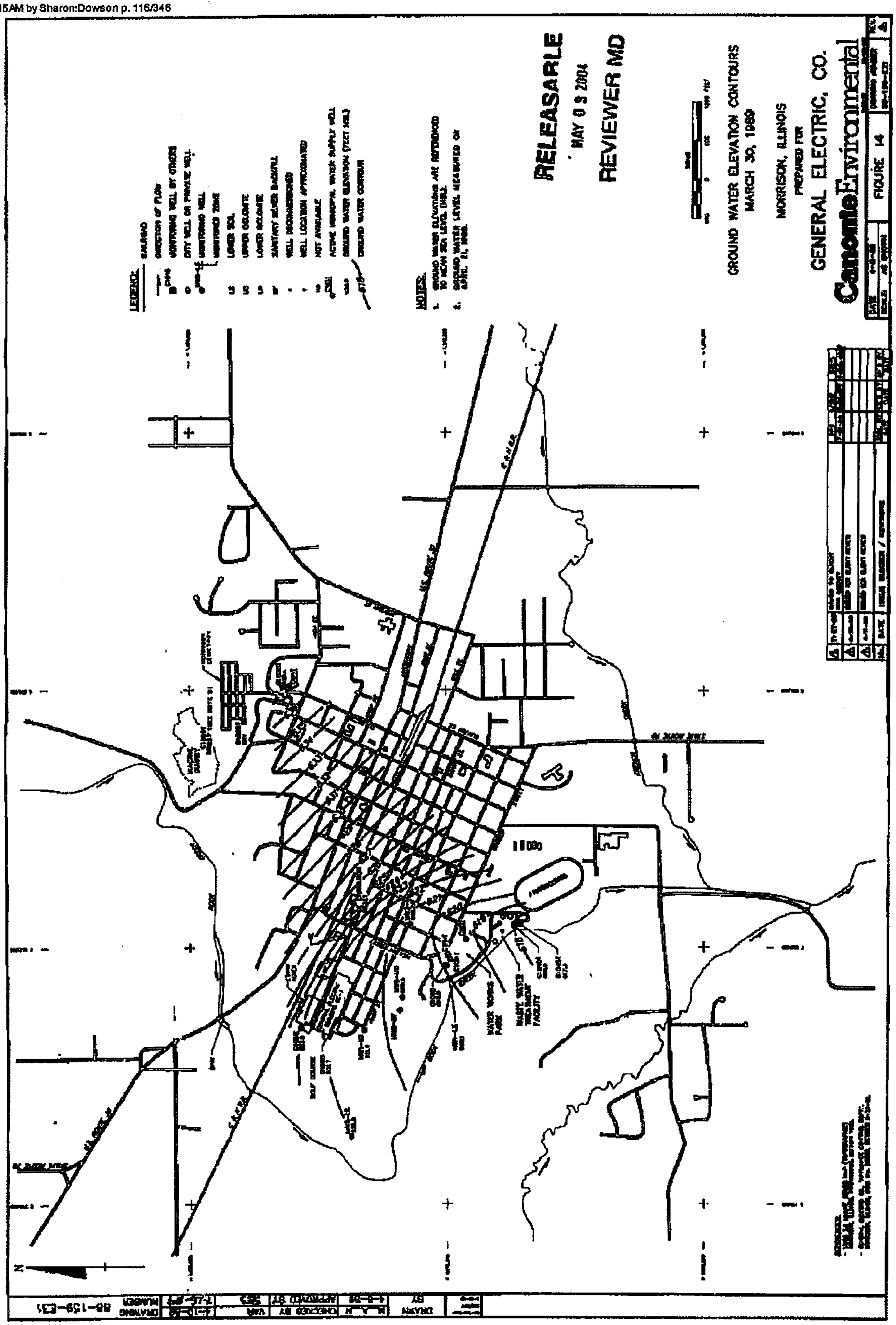

RELEASABLE
MAY 0 5 2004
REVIEWER MD
GROUND WATER ELEVATION CONTOURS
MARCH 30, 1989
MORRISON, ILLINOIS
PREPARED FOR
GENERAL ELECTRIC, CO.
Canonie Environmental
FIGURE 14

TABLE 2

AIR STRIPPING TOWER
INFLUENT AND EFFLUENT TCE CONCENTRATIONS
PHASE II REMEDIAL INVESTIGATION
GENERAL ELECTRIC COMPANY
MORRISON, ILLINOIS

Sample ID[a]	Date Sampled	TCE Concentration (ppm)
A-001	09-02-88	0.056
B-001	09-02-88	ND 0.0005
A-002	09-02-88	0.041
B-002	09-02-88	ND 0.005
A-003	09-09-88	0.031
B-003	09-09-88	ND 0.0005
A-004	09-16-88	0.026
B-004	09-16-88	ND 0.0005
A-005	09-26-88	0.043
B-005	09-26-88	ND 0.0005
A-006	10-03-88	0.03
B-006	10-03-88	ND 0.0005
A-007	10-03-88	0.016
B-007	10-03-88	ND 0.005
A-008	10-11-88	0.038
B-008	10-11-88	ND 0.0005
A-009	10-20-88	0.02
B-009	10-20-88	ND 0.0005
A-010	11-08-88	0.018
B-010	11-08-88	ND 0.0005
A-011	12-14-88	0.018
B-011	12-14-88	ND 0.0005
A-012	01-24-89	0.013
B-012	01-24-89	ND 0.0005
A-013	04-06-89	0.013
B-013	04-06-89	ND 0.0005
A-014	04-26-89	0.013

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TABLE 2

AIR STRIPPING TOWER
INFLUENT AND EFFLUENT TCE CONCENTRATIONS
PHASE II REMEDIAL INVESTIGATION
GENERAL ELECTRIC COMPANY
MORRISON, ILLINOIS
(Continued)

Sample ID[a]	Date Sampled	TCE Concentration (ppm)
B-014	04-26-89	ND 0.0005
A-015	05-31-89	0.050
B-015	05-31-89	ND 0.0005
A-016	06-16-89	0.049
B-016	06-16-89	ND 0.0005

Notes:

[a]Prefix "A" denotes air stripping tower influent samples. Prefix "B" denotes air stripping tower effluent sample.

TABLE 4

MONITORING WELL CONSTRUCTION DETAILS
PHASE II REMEDIAL INVESTIGATION
GENERAL ELECTRIC COMPANY
MORRISON, ILLINOIS

Well No.	Soil Boring No.	Monitored Zone	Well Location Northing	Well Location Easting	Ground Surface Elevation (Ft. MSL)	Well Depth (Ft.)	Water Level Measuring Point Elevation (Ft. MSL)	Gravel Packed Depths (Ft.)	Screened Depths (Ft.)	Casing Diameter (In.)	Installation Date	Well Owner
G101D	G101D	LD	1,872,015	551,713	623.9	239.0	626.10	201.0-239.0	223.0-239.0	2.0	6-25-87	IEPA
G102D	G102D	UD	--	--	711.7	82.2	713.6	54.0-79.0	66.3-82.2	2.0	6-23-87	IEPA
G103S	G103S	US	--	--	696.7	28.5	--	10.0-28.5	11.5-27.5	2.0	6-24-87	IEPA
G104S	G104S	US	--	--	624.3	22.0	626.9	6.4-22.0	7.2-17.7	2.0	6-18-87	IEPA
G104D	G104D	UD	--	--	624.6	50.0	626.9	32.5-50.0	33.0-49.0	2.0	6-22-87	IEPA
G105S	G105S	US	1,874,306	550,749	634.3	24.0	635.81	7.0-23.0	8.0-24.0	2.0	6-22-87	IEPA
G105D	G105D	UD	1,873,736	550,859	642.1	55.9	644.39	28.0-46.0	32.2-48.1	2.0	6-21-87	IEPA
G106D	G106D	UD	--	--	632.4	25.5	--	6.0-25.5	6.5-22.5	2.0	6-24-87	IEPA
MW1-LD	EB-1A	LD	1,873,306	550,708	637.1	270.0	639.91	235.0-270.0	259.0-269.0	2.0	1-09-89	General Electric
MW2-UD	EB-2	UD	1,872,577	552,355	640.4	64.0	642.82	45.5-64.0	52.0-62.0	2.0	1-16-89	General Electric
MW3-UD	EB-3	UD	1,872,706	551,225	624.7	103.5	627.31	73.5-103.5	92.0-102.0	2.0	1-19-89	General Electric

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TABLE 4

MONITORING WELL CONSTRUCTION DETAILS
PHASE II REMEDIAL INVESTIGATION
GENERAL ELECTRIC COMPANY
MORRISON, ILLINOIS
(Continued)

Well No.	Soil Boring No.	Monitored Zone	Well Location Northing	Well Location Easting	Ground Surface Elevation (Ft. MSL)	Well Depth (Ft.)	Water Level Measuring Point Elevation (Ft. MSL)	Gravel Packed Depths (Ft.)	Screened Depths (Ft.)	Casing Diameter (In.)	Installation Date	Well Owner
MW4-LS	EB-4	LS	1,871,965	551,509	624.3	96.0	626.61	58.0-96.0	83.5-93.5	2.0	1-25-89	General Electric
MW5-LS	EB-5	LS	1,873,505	549,053	624.0	88.5	626.51	48.0-88.5	73.0-83.0	2.0	1-31-89	General Electric
MW6-BF	--	BF	1,872,745	551,025	626.2	10.8	628.21	7.1-10.8	5.8-10.8	2.0	1-10-89	General Electric

Notes:

1. G-Series wells installed by John Mathes & Associates, Inc. MW-Series wells installed by Canonie Environmental Services Corp.
2. Monitored Zones are defined as follows:
   US - Upper Soil
   LS - Lower Soil
   UD - Upper Dolomite
   LD - Lower Dolomite
   BF - Sanitary Sewer Backfill
3. Location coordinates are referenced to Illinois state plane coordinates.
4. Water level measuring point is the top of well casing PVC extension.

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TABLE 5

MONITORING WELL DEVELOPMENT
DATA SUMMARY
PHASE II REMEDIAL INVESTIGATION
GENERAL ELECTRIC COMPANY
MORRISON, ILLINOIS

Well No.	Date Installed	Date Developed	Method of Development	Volume of Water Removed (gallons)	Duration of Development (hours)	Ground Water Parameters pH	Ground Water Parameters Temp. (°F)	Ground Water Parameters Specific Conductivity (us/cm)	Purge Water Clarity Start	Purge Water Clarity Finish
MW1-LD	1-09-89	2-13-89	Bladder Pump	140	8.0	--	48.5-51.5	$0.7x10^3$-$3.7x10^3$	Cloudy	Clear
MW2-UD	1-16-89	1-31-89	Bladder Pump	490	6.0	--	55.2-57.2	$10.9x10^2$-$11.2x10^2$	Cloudy	Clear
MW3-UD	1-19-89	2-01-89	Bladder Pump	540	8.0	--	48.8-51.2	$8.7x10^2$-$8.9x10^2$	Cloudy	Clear
MW4-LS	1-25-89	2-06-89 2-11-89	Bladder Pump	500	7.2	--	45.3-50.0	$9.2x10^2$-$12.2x10^2$	Muddy	Clear
MW5-LS	1-31-89	2-12-89	Bladder Pump	780	7.0	--	49.9-51.6	$7.4x10^2$-$7.8x10^2$	Muddy	Clear
MW6-BF	1-10-89	3-04-89	Teflon Bailer	6	1.0	--	--	--	Muddy	Cloudy
G101D	6-25-87	2-15-89[a]	Bladder Pump	400	7.2	6.8-8.7	50.3-51.1	$6.7x10^2$-$8.2x10^2$	Clear	Cloudy
G105S	6-22-87	3-21-89[a]	Teflon Bailer	8	2.5	--	--	--	Muddy	Muddy
G105D	6-21-87	2-16-89[a]	Bladder Pump	190	4.8	--	51.5-56.5	$5.7x10^2$-$10.3x10^2$	Muddy	Muddy

Notes:

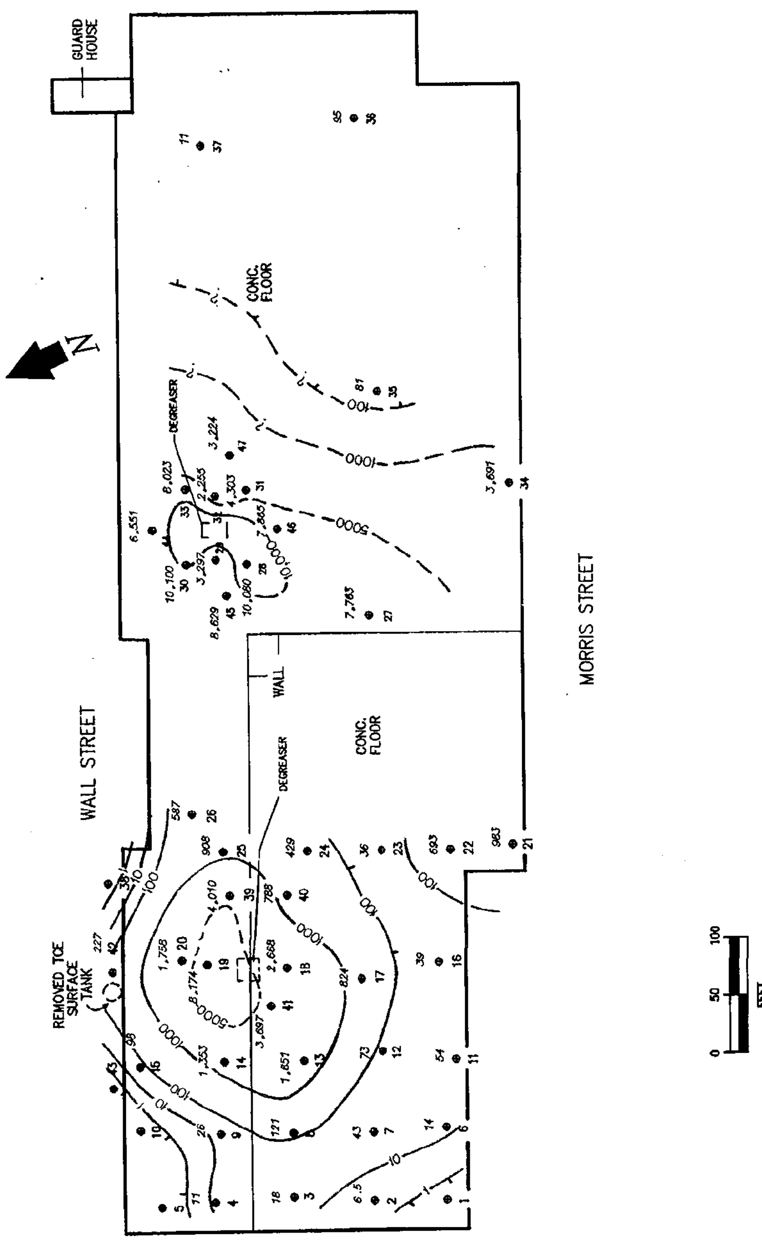
1. MW-Series wells installed by Canonie Environmental Services Corp.
   G-Series wells installed by John Mathes & Associates, Inc.

[a]Well was redeveloped by Canonie.

Canonie Environmental

Exhibit 3

Selected Materials from
Target Environmental's Soil Gas Survey Report
(dated August 1989)



• SOIL GAS SAMPLE LOCATION

FIGURE 2. 1,1–DCE (µg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

TARGET ENVIRONMENTAL SERVICES, INC.

This map is integral to a written report and should be viewed in that context.

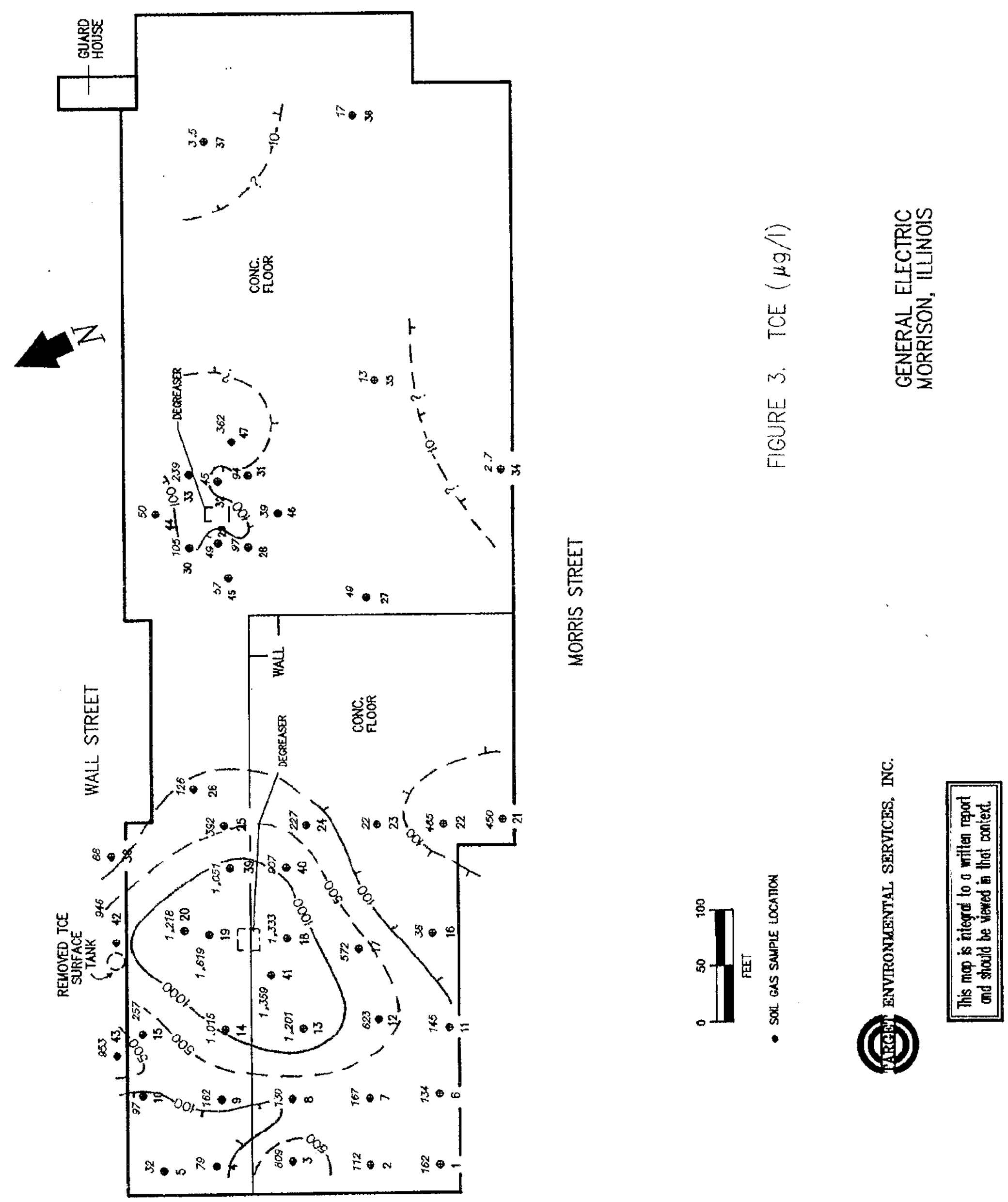


FIGURE 3. TCE ($\mu g/l$)

GENERAL ELECTRIC
MORRISON, ILLINOIS

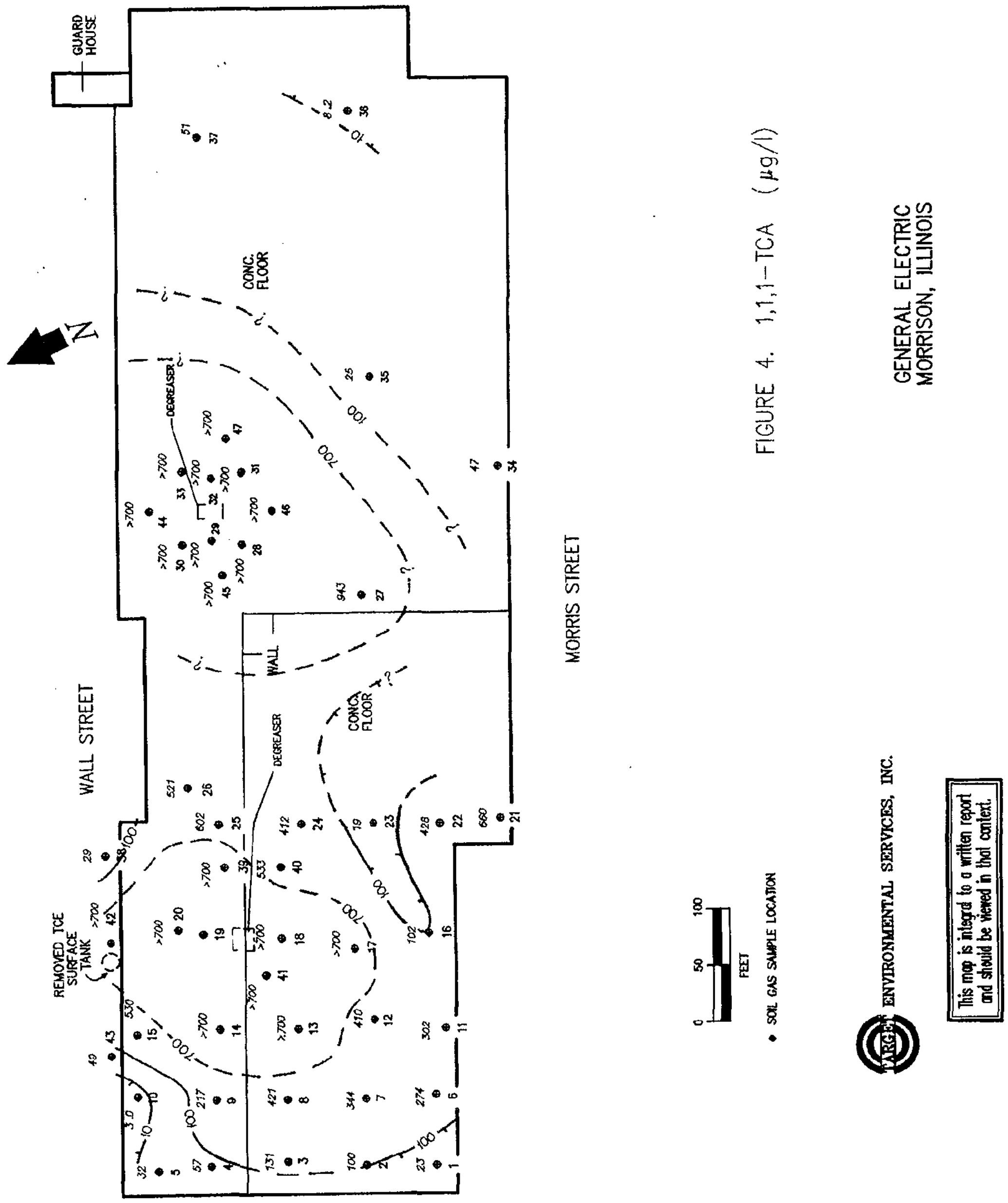


FIGURE 4. 1,1,1-TCA (μg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

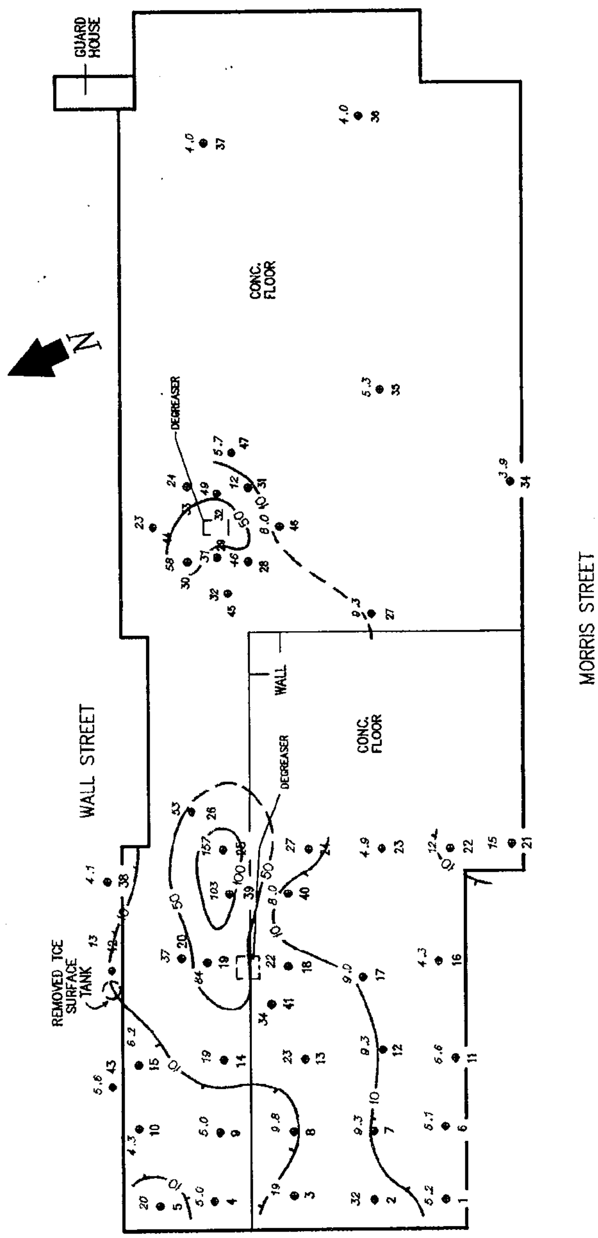


FIGURE 5. PCE (μg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

0 50 100
FEET

• SOIL GAS SAMPLE LOCATION

TARGET ENVIRONMENTAL SERVICES, INC.

This map is integral to a written report and should be viewed in that context.

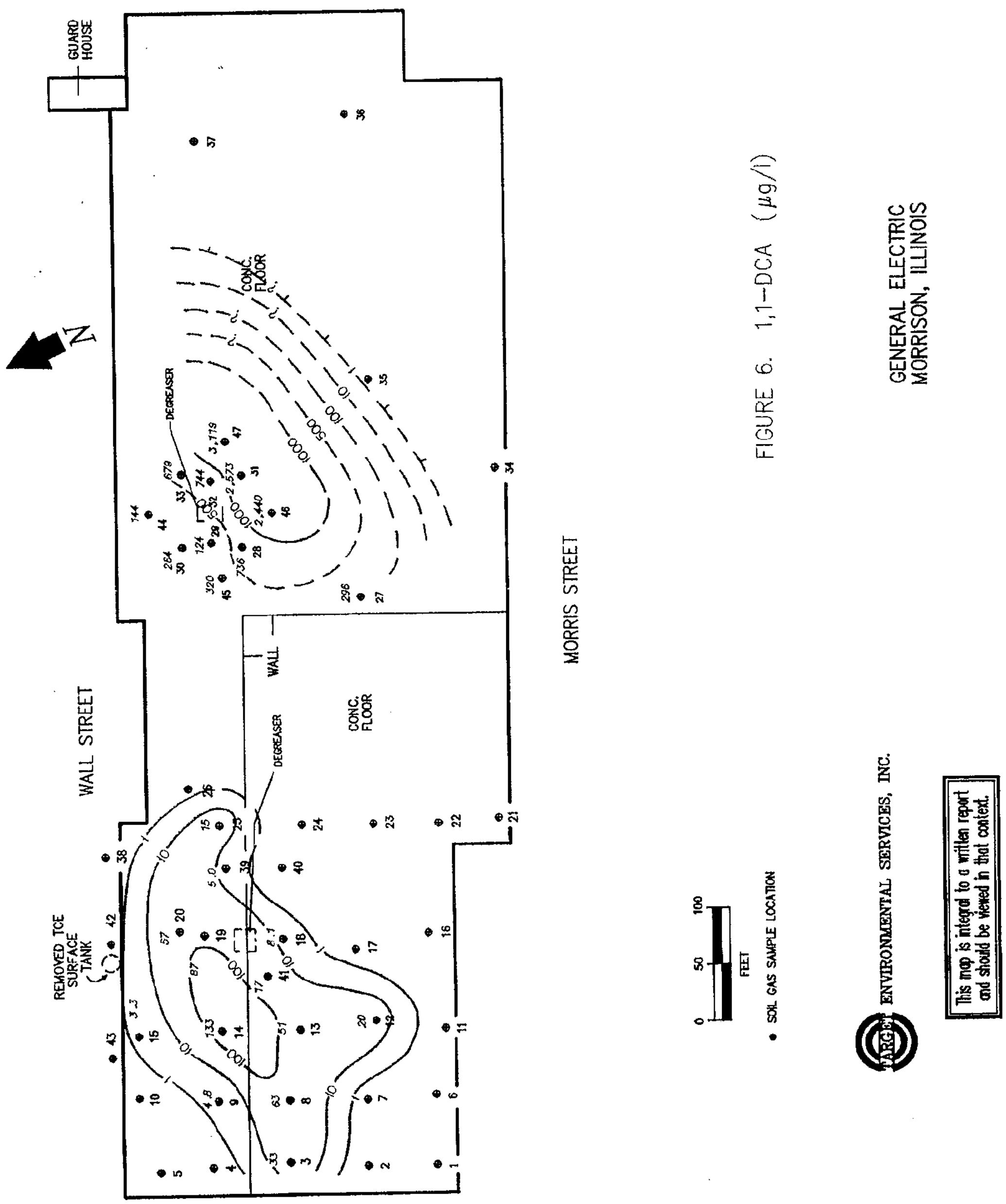


FIGURE 6. 1,1-DCA (µg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

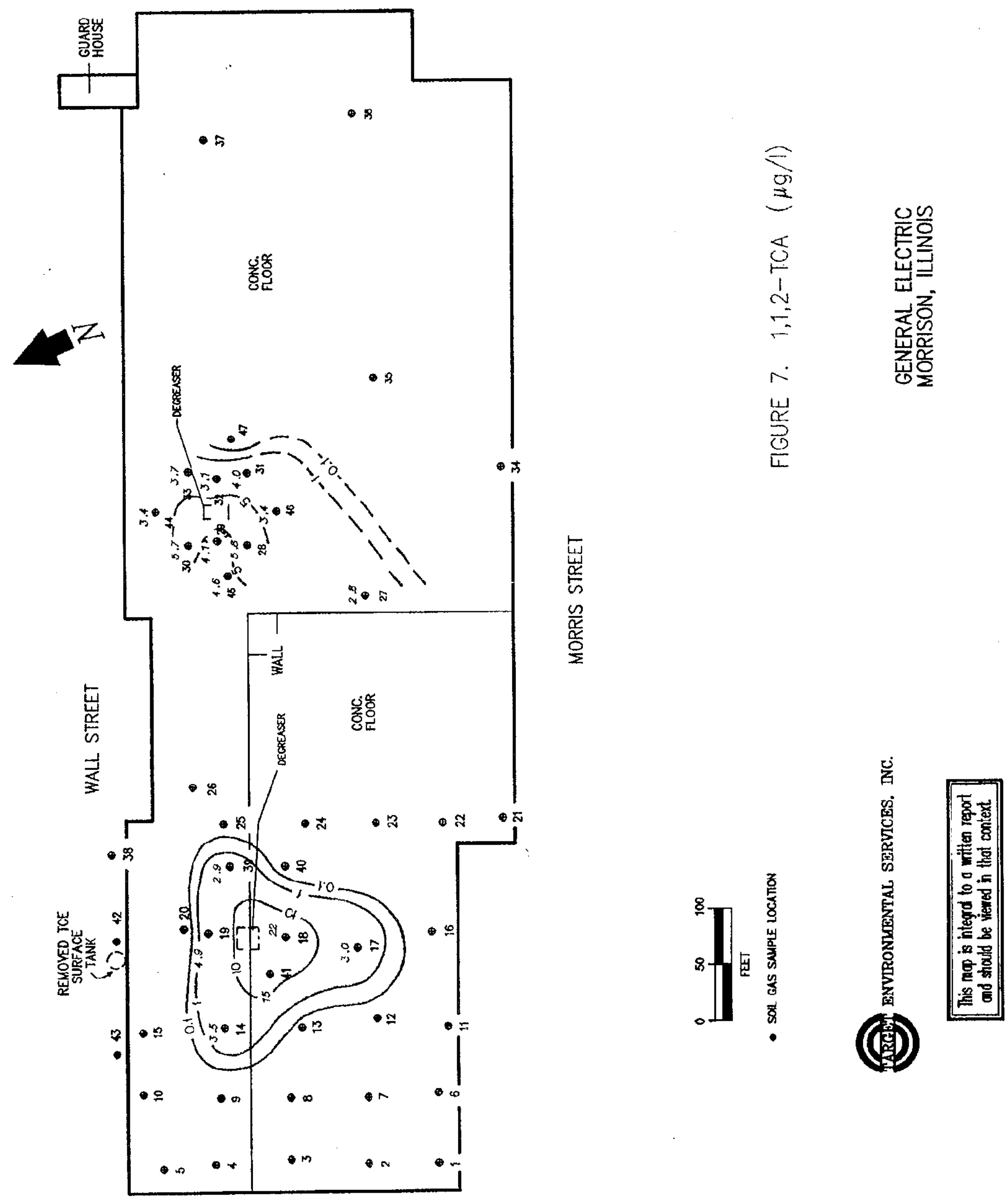


FIGURE 7. 1,1,2−TCA (µg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

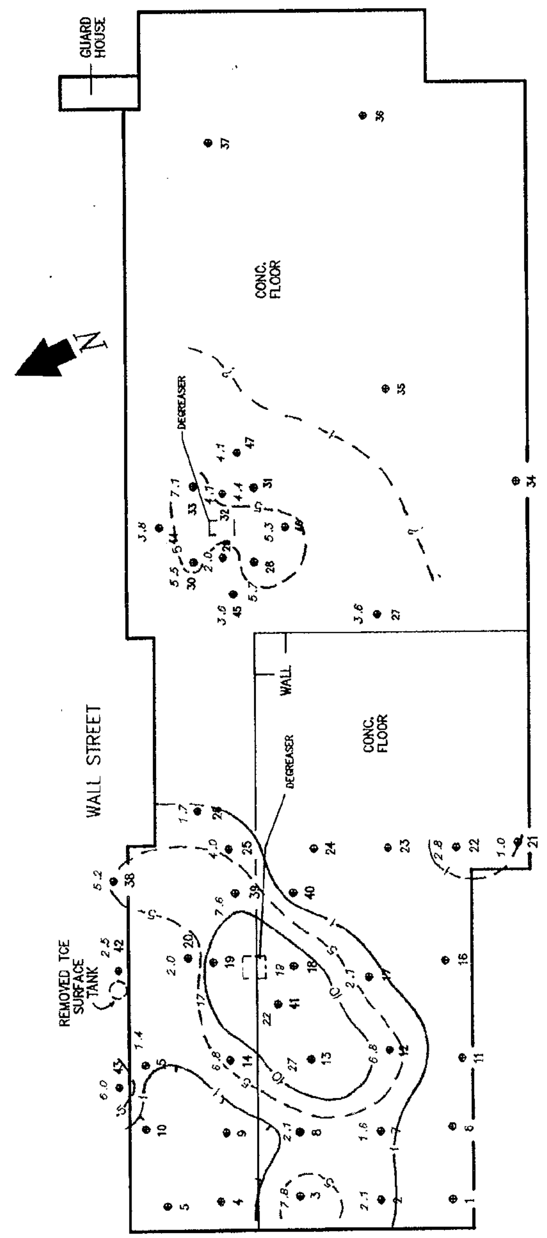


FIGURE 8. Chloroform (µg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

0 50 100
FEET

● SOIL GAS SAMPLE LOCATION

TARGET ENVIRONMENTAL SERVICES, INC.

This map is integral to a written report and should be viewed in that context.

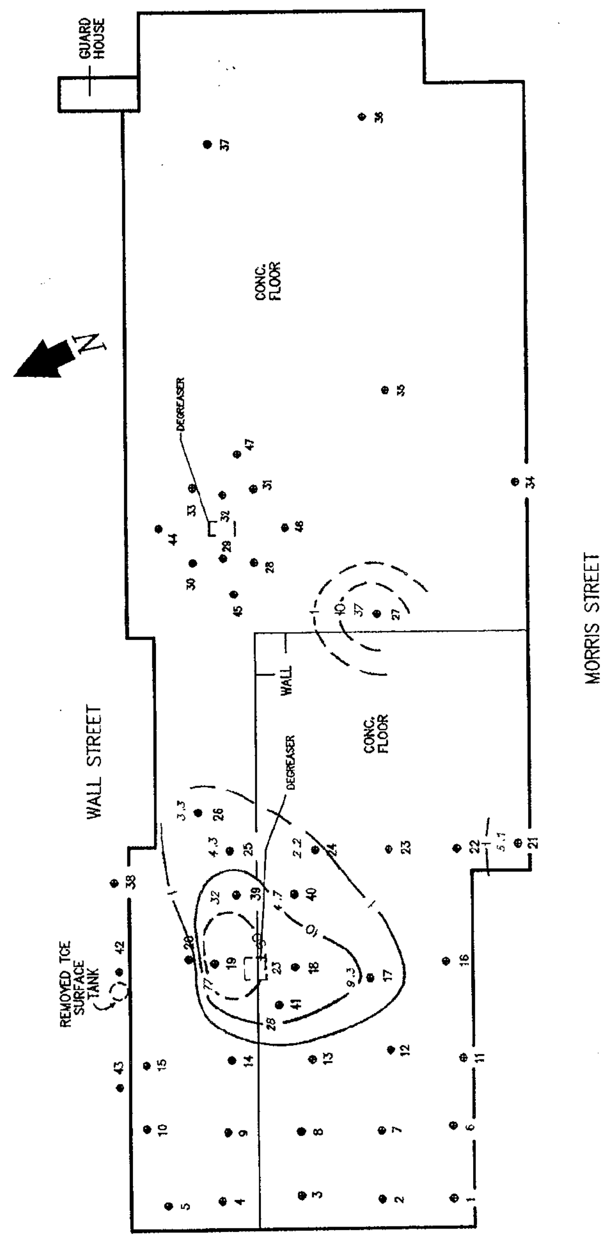


FIGURE 9. Carbon Tetrachloride (µg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

0 50 100
FEET

● SOIL GAS SAMPLE LOCATION

TARGET ENVIRONMENTAL SERVICES, INC.

This map is integral to a written report and should be viewed in that context.

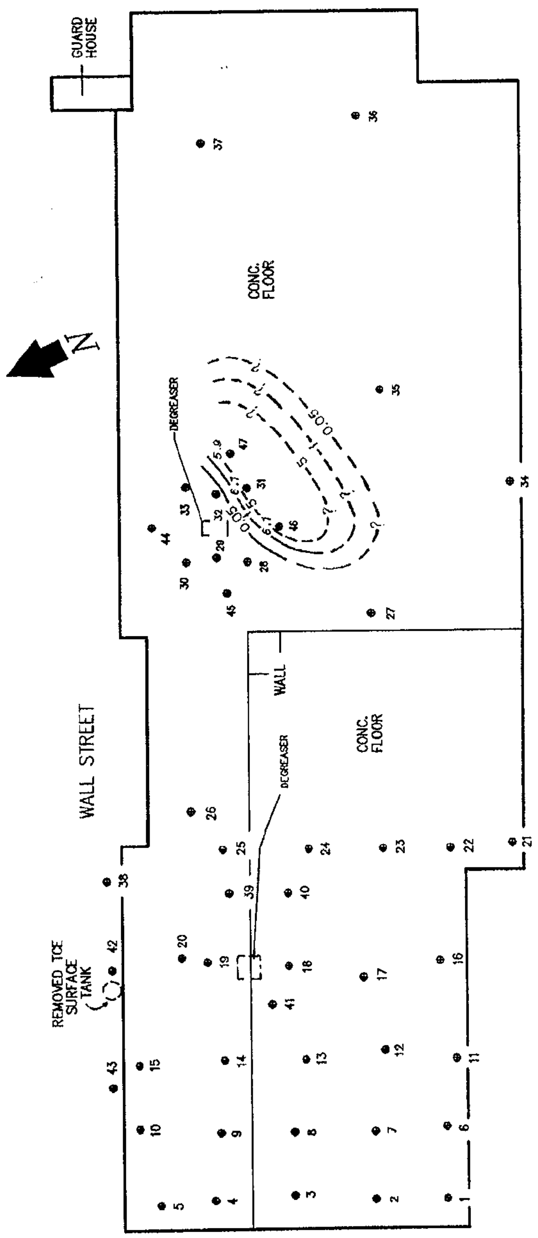


FIGURE 10. TECA (µg/l)

GENERAL ELECTRIC
MORRISON, ILLINOIS

0 50 100
FEET

● SOIL GAS SAMPLE LOCATION

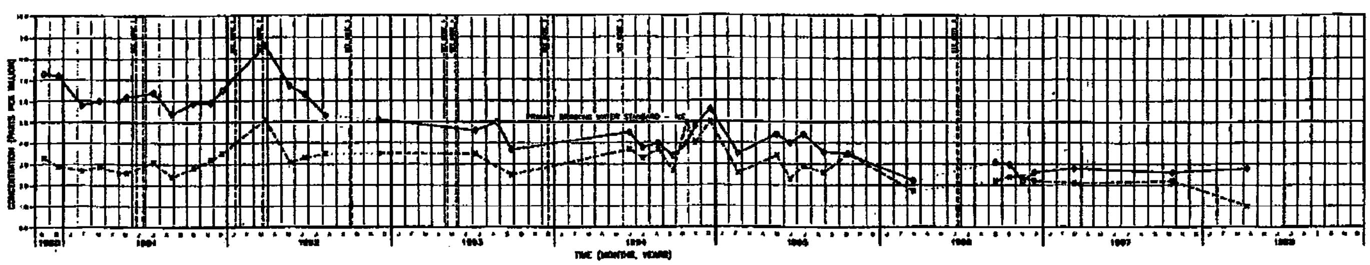
TARGET ENVIRONMENTAL SERVICES, INC.

This map is integral to a written report and should be viewed in that context.

Exhibit 4

**Selected Materials from GeoTrans'
Natural Attenuation and Groundwater Modeling Report
(dated October 2001)**

TCE CONCENTRATION AT START-UP (SEPTEMBER 2, 1988) OF AIR STRIPPER WAS 56 ppb



NOTES:

1. AIR STRIPPER WAS SHUT DOWN FROM JUNE 10 THROUGH JUNE 25, 1991 FOR THE INSPECTION AND CLEANING OF THE PACKING.
2. AIR STRIPPER WAS SHUT DOWN FROM JANUARY 20, THROUGH MARCH 19, 1992 TO REPAIR THE HIGH LIFT PUMPS IN THE RESERVOIR SYSTEM FOR CITY WELL No. 3.
3. THE RESULTS OF THE OCTOBER 2, 1992 AND JUNE 25, 1996 INFLUENT SAMPLES WERE REPORTED NON DETECTABLE AT 1.0 PPB. HOWEVER, THIS RESULT IS NOT CONSIDERED REPRESENTATIVE BASED ON PREVIOUS INFLUENT SAMPLING RESULTS.
4. AIR STRIPPER WAS DOWN FROM MAY 6, 1993 TO MAY 26, 1993 DUE TO A BLOWER FAILURE.
5. AIR STRIPPER WAS DOWN FROM DECEMBER 15, 1993 TO MAY 31, 1994 FOR REPAIRS.

LEGEND:

—O— TRICHLOROETHENE CONCENTRATION (TCE)

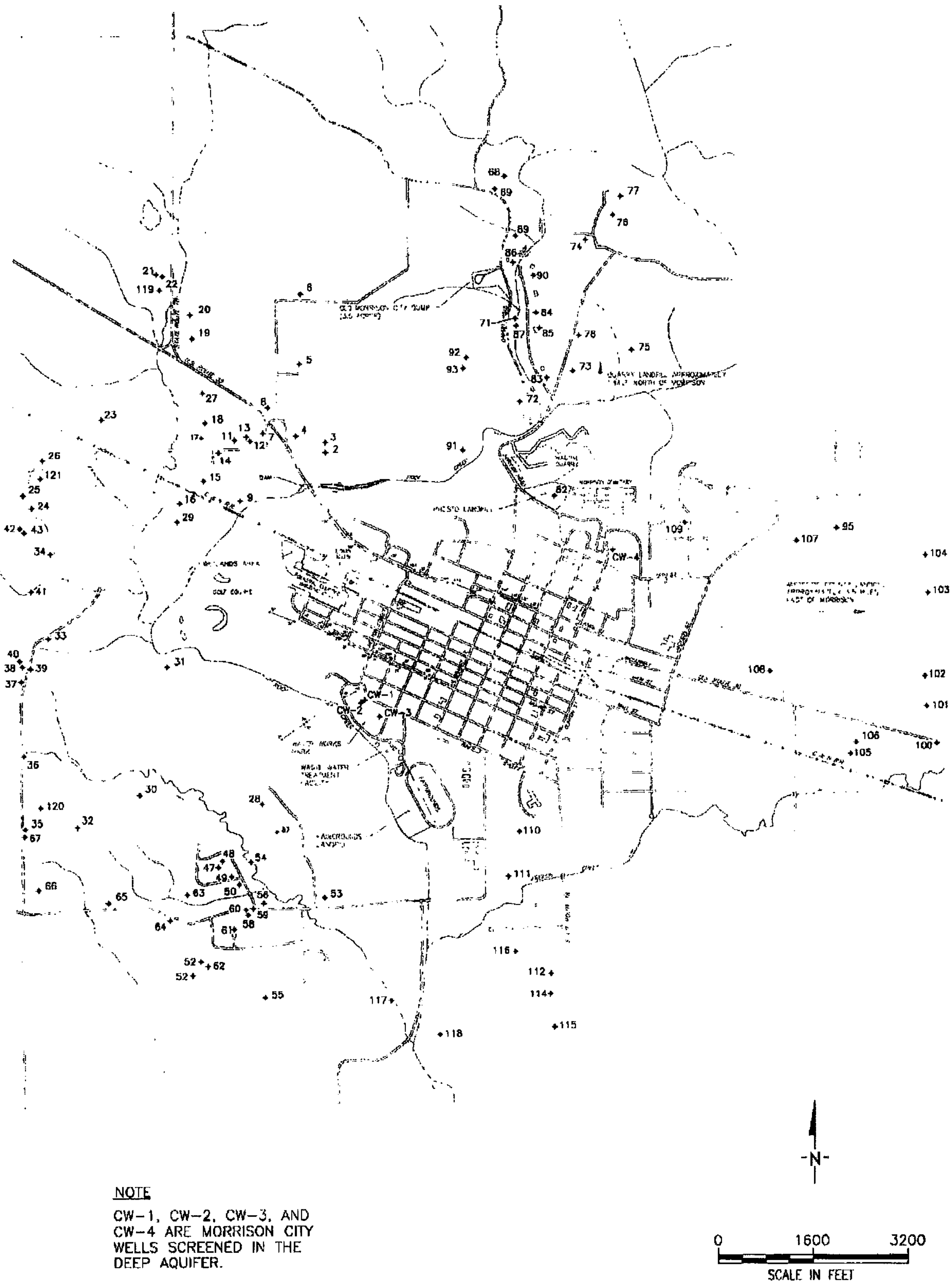
---X--- CIS 1,2 DICHLOROETHENE CONCENTRATION (DCE)

-MODIFIED FROM HARRINGTON ENGINEERING AND CONSTRUCTION (1998)

Figure 2-3. City well No. 3 air stripper influent results during steady state operations from November 1990 through April 1998.

GeoTrans, Inc.

P225005C.DWG



NOTE

CW-1, CW-2, CW-3, AND CW-4 ARE MORRISON CITY WELLS SCREENED IN THE DEEP AQUIFER.

Figure 3-2. Locations of residential wells in Morrison, Illinois and vicinity.

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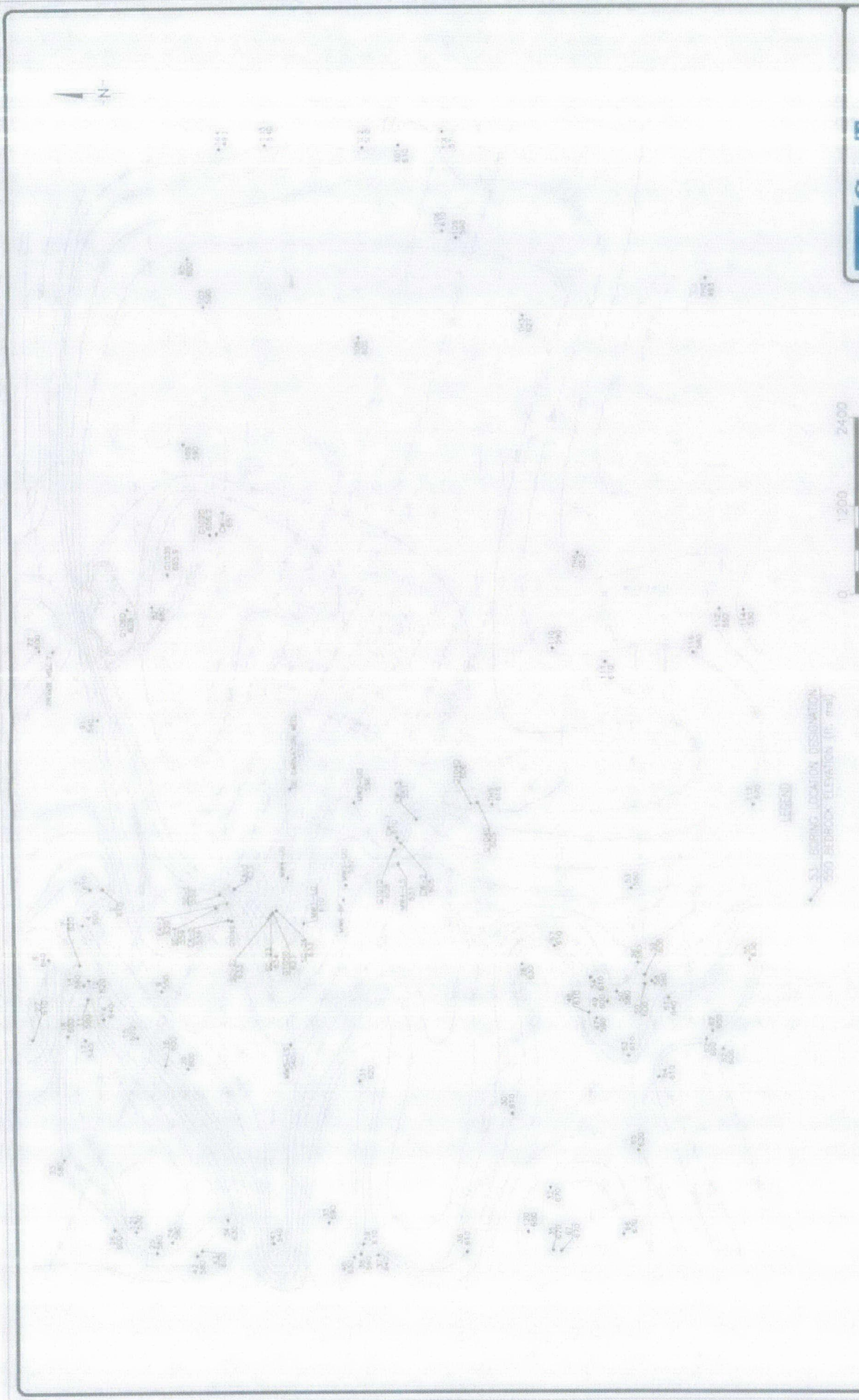

Figure 3-9. Bedrock topographic surface map.

P2250048.DWG

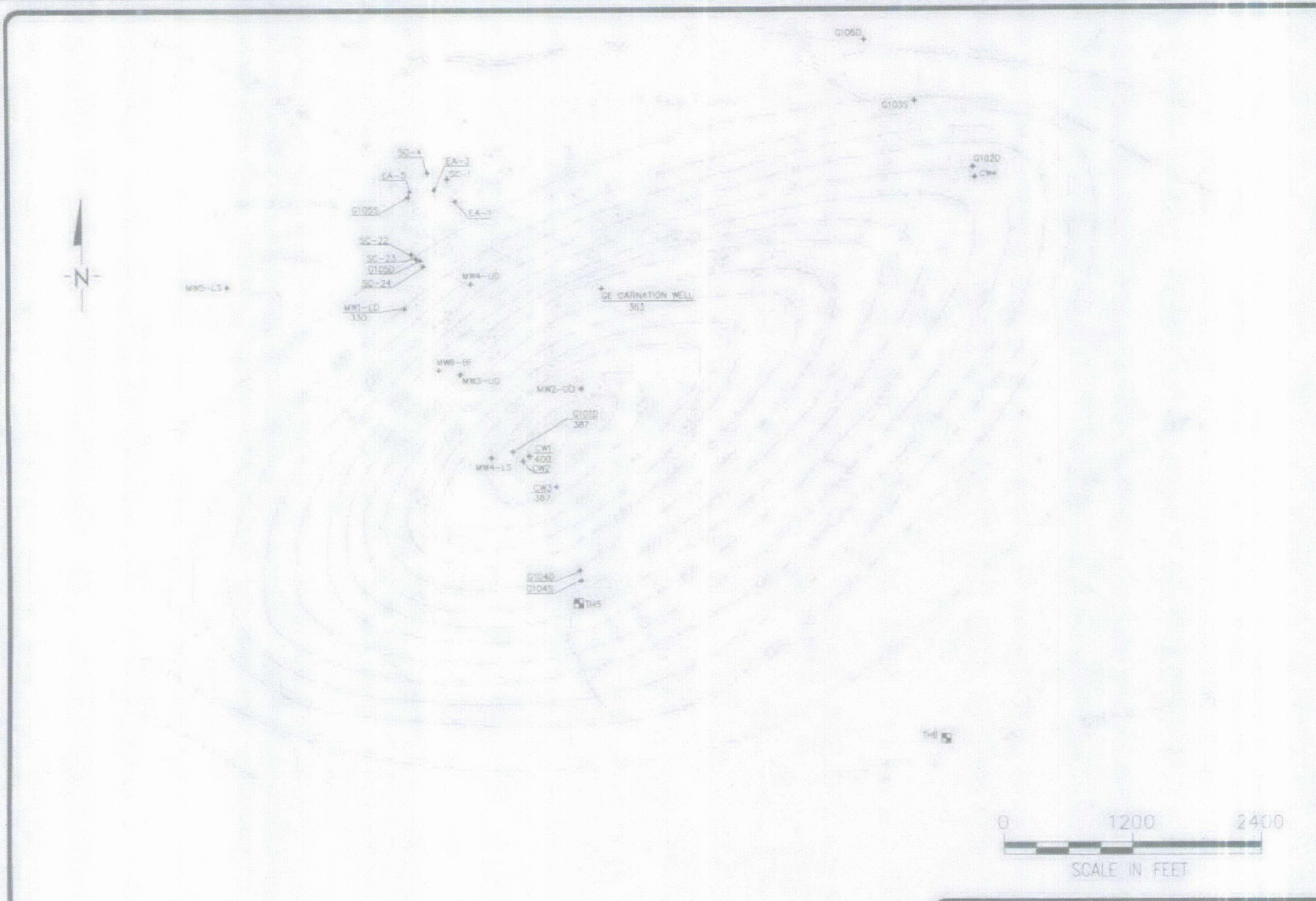

Figure 3-10. Basal confining unit (Maquoketa Shale) elevation map.

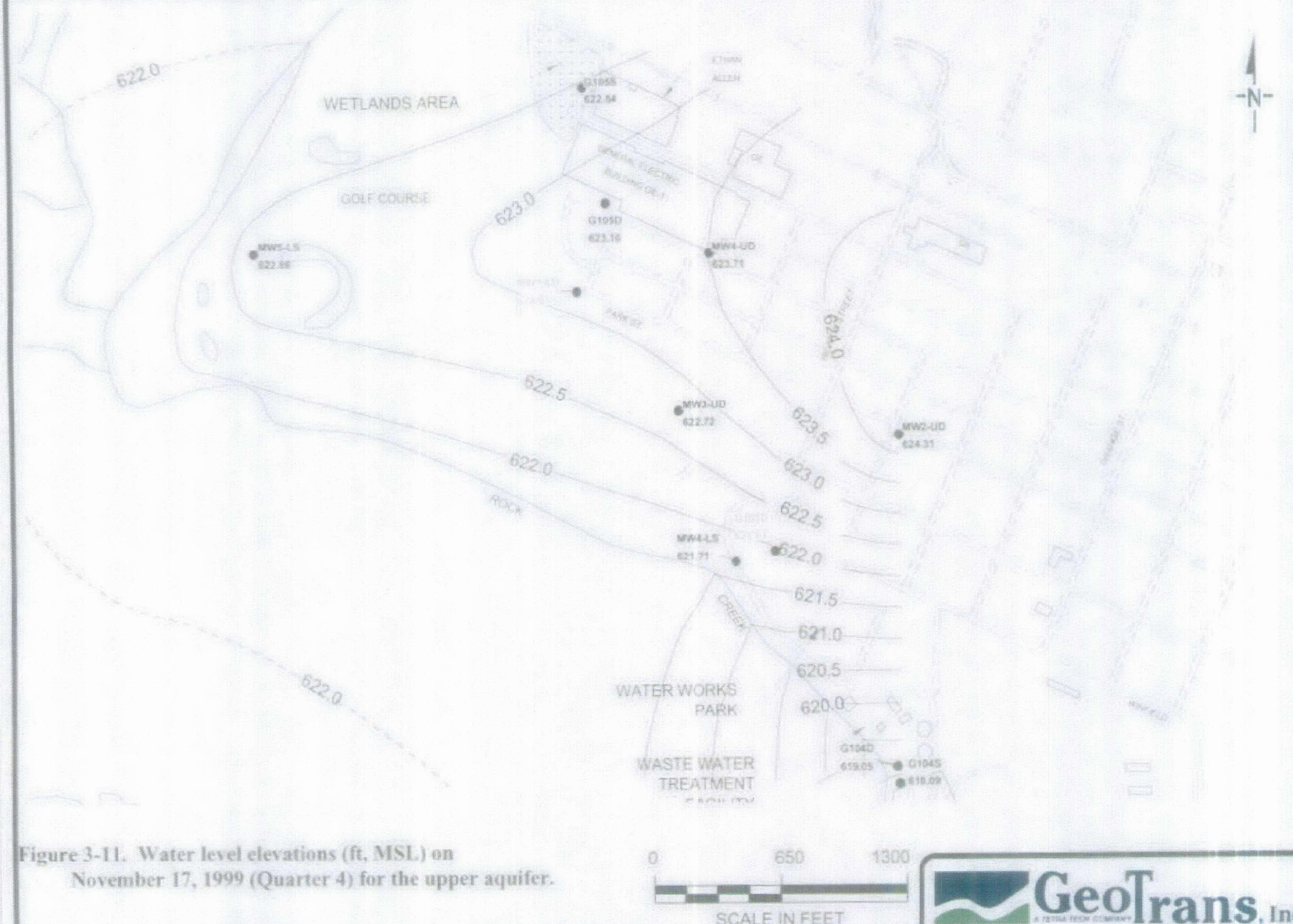

Figure 3-11. Water level elevations (ft, MSL) on November 17, 1999 (Quarter 4) for the upper aquifer.

GeoTrans, Inc.

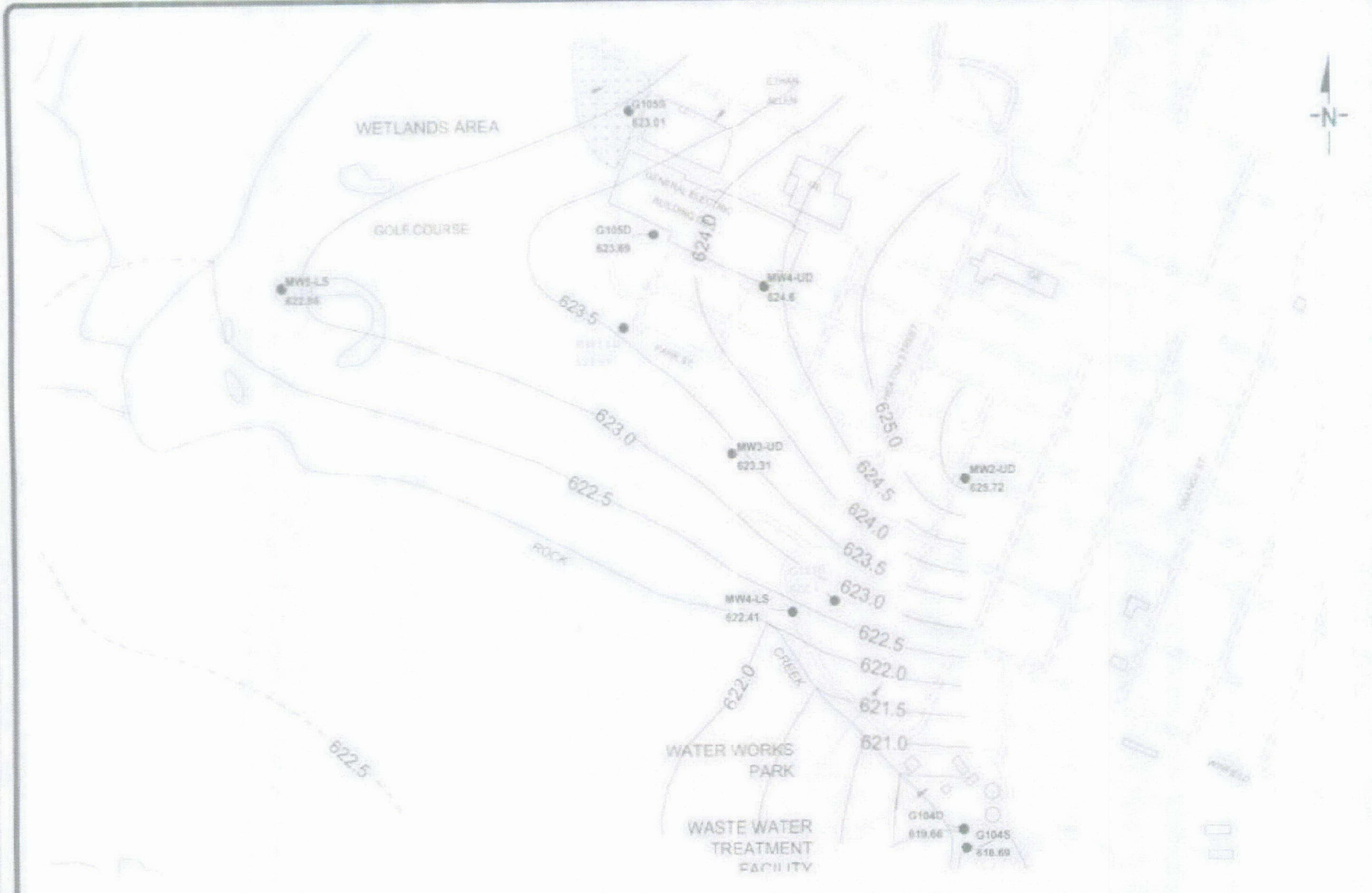

Figure 3-12. Water level elevations (ft, MSL) on August 18, 1999 (Quarter 3) for the upper aquifer.

0 650 1300

SCALE IN FEET

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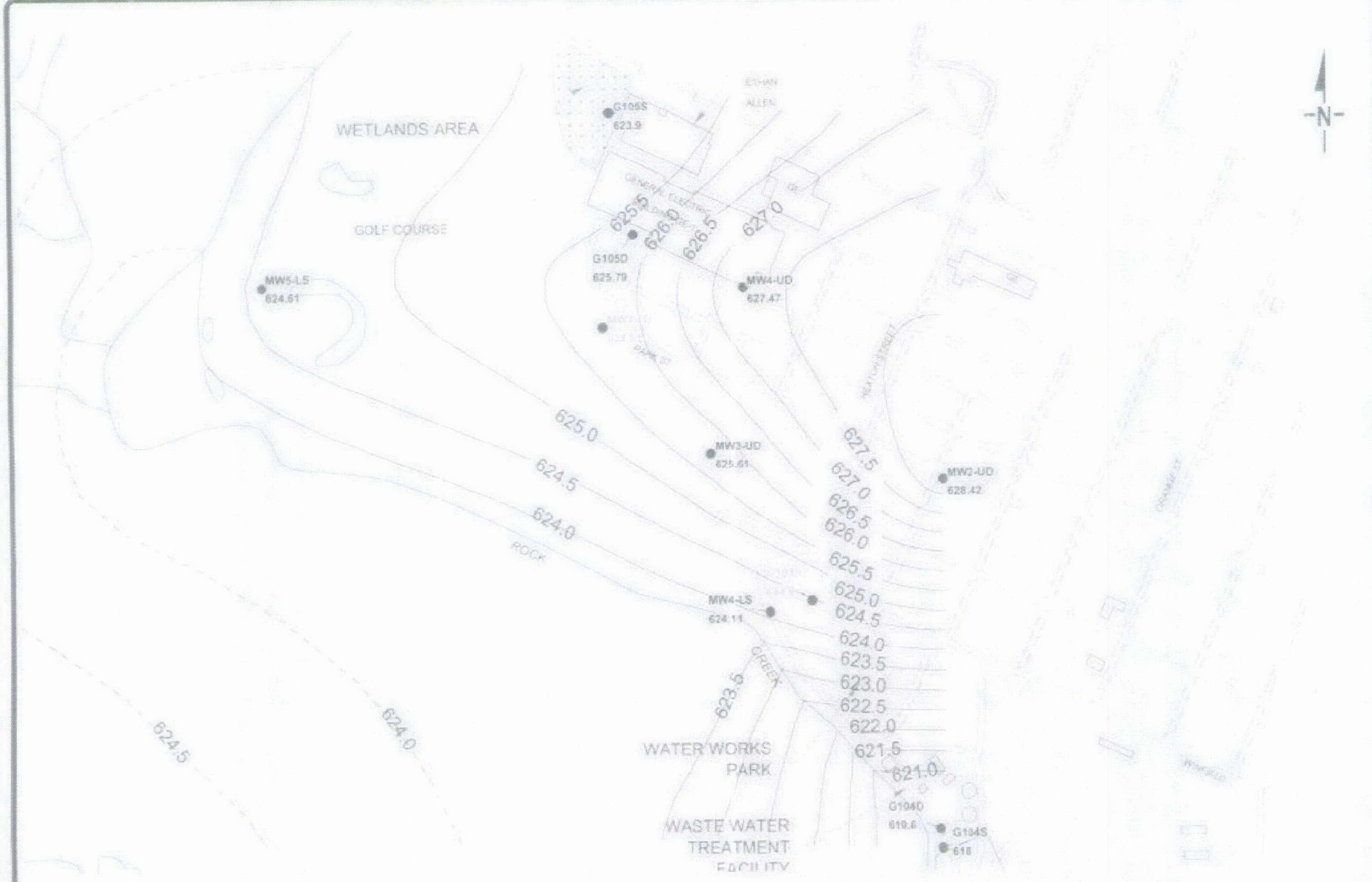

Figure 3-13. Water level elevations (ft, MSL) on June 14, 1995 (Quarter 2) for the upper aquifer.

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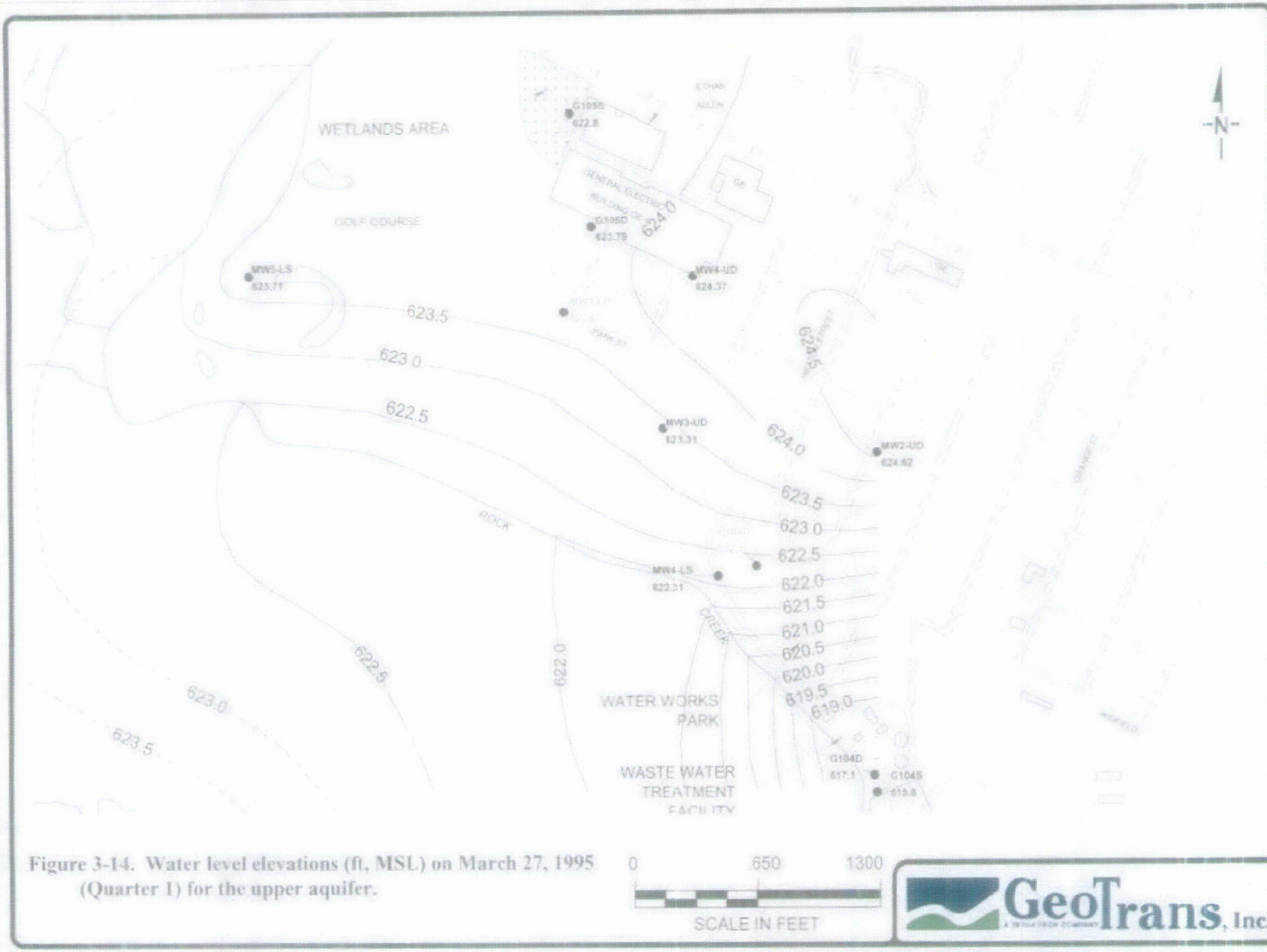

Figure 3-14. Water level elevations (ft, MSL) on March 27, 1995 (Quarter 1) for the upper aquifer.

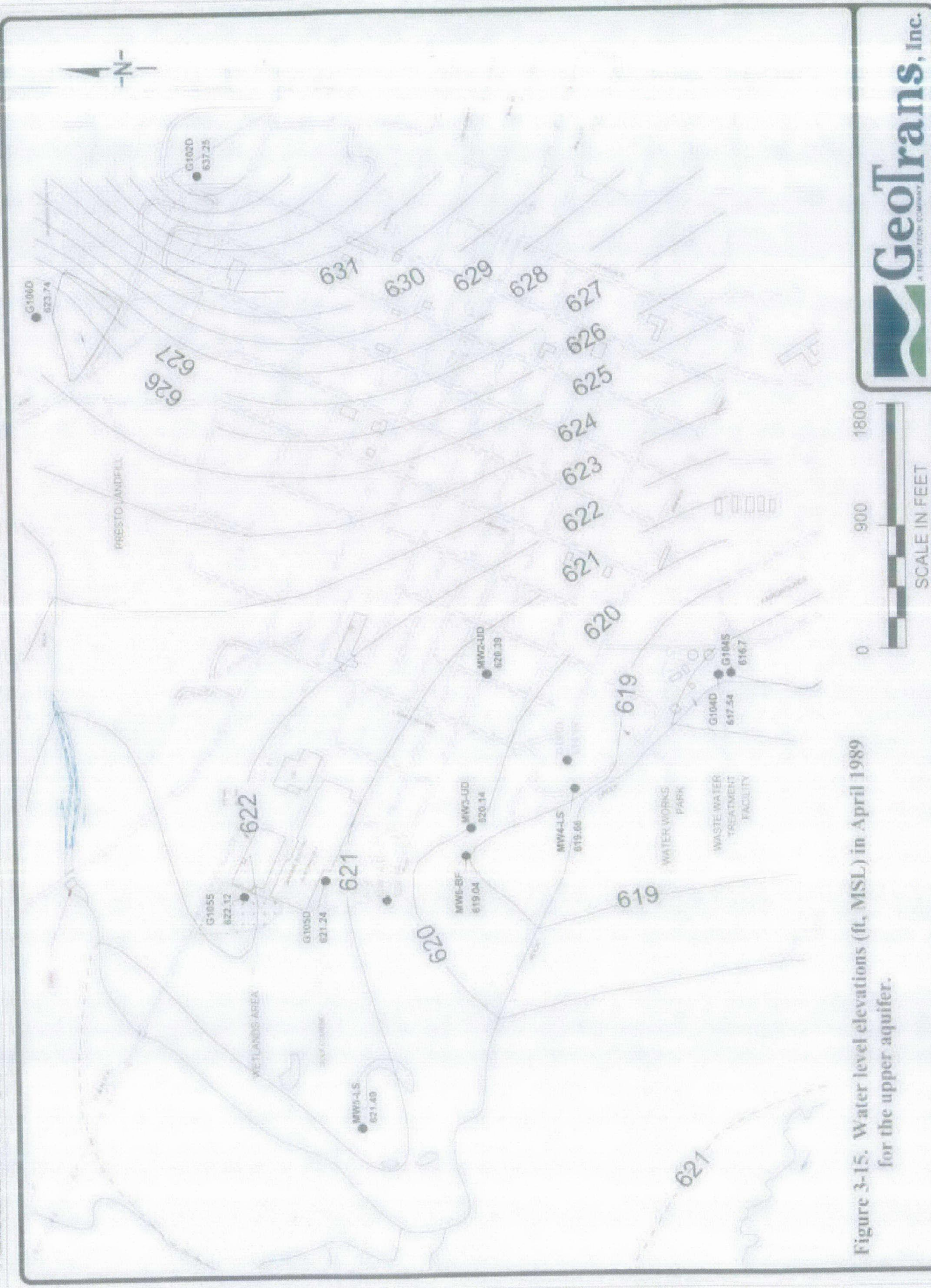

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Figure 3-15. Water level elevations (ft, MSL) in April 1989 for the upper aquifer.

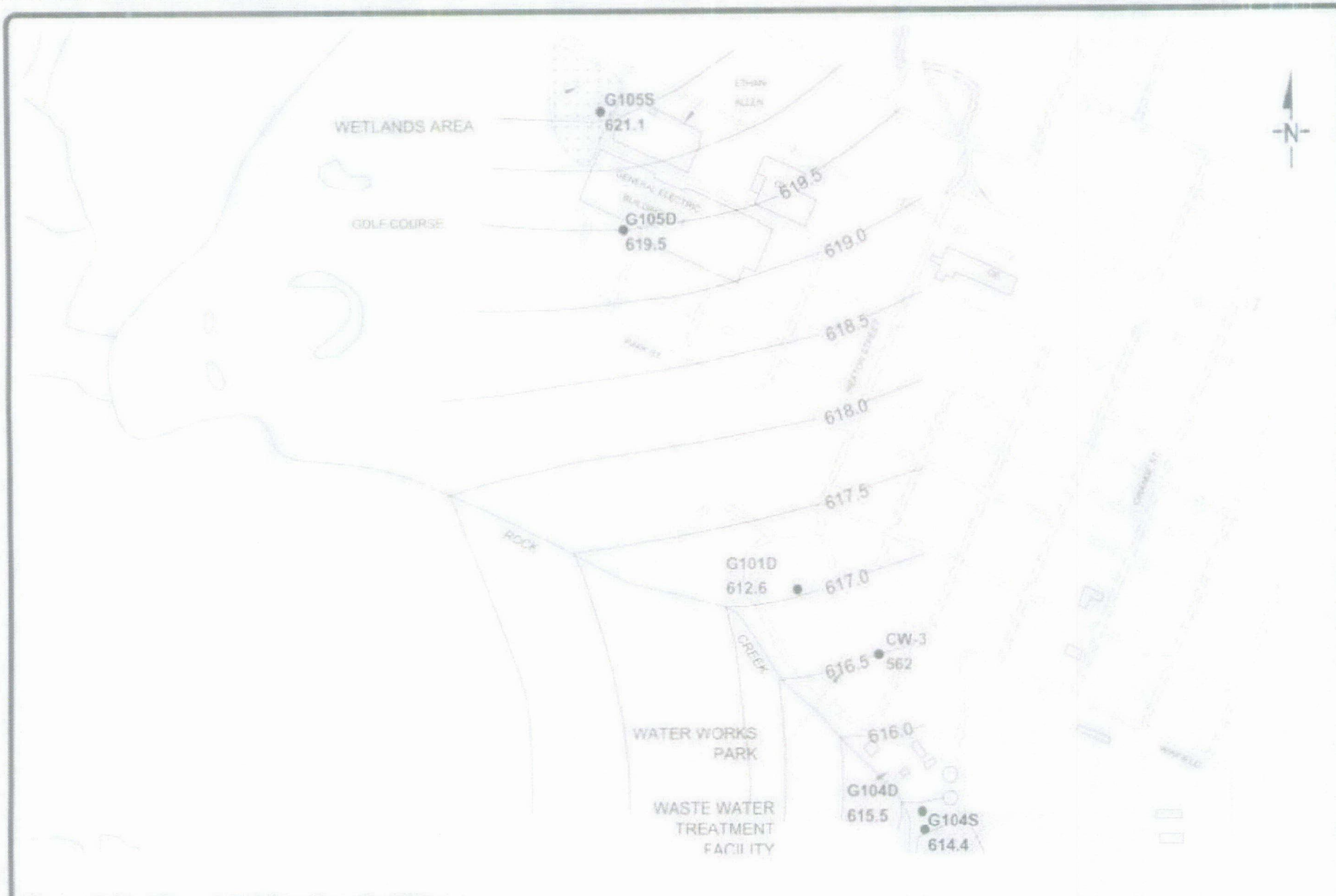

Figure 3-16. Water level elevations (ft, MSL) on June 20 - July 1, 1987 for the upper aquifer.

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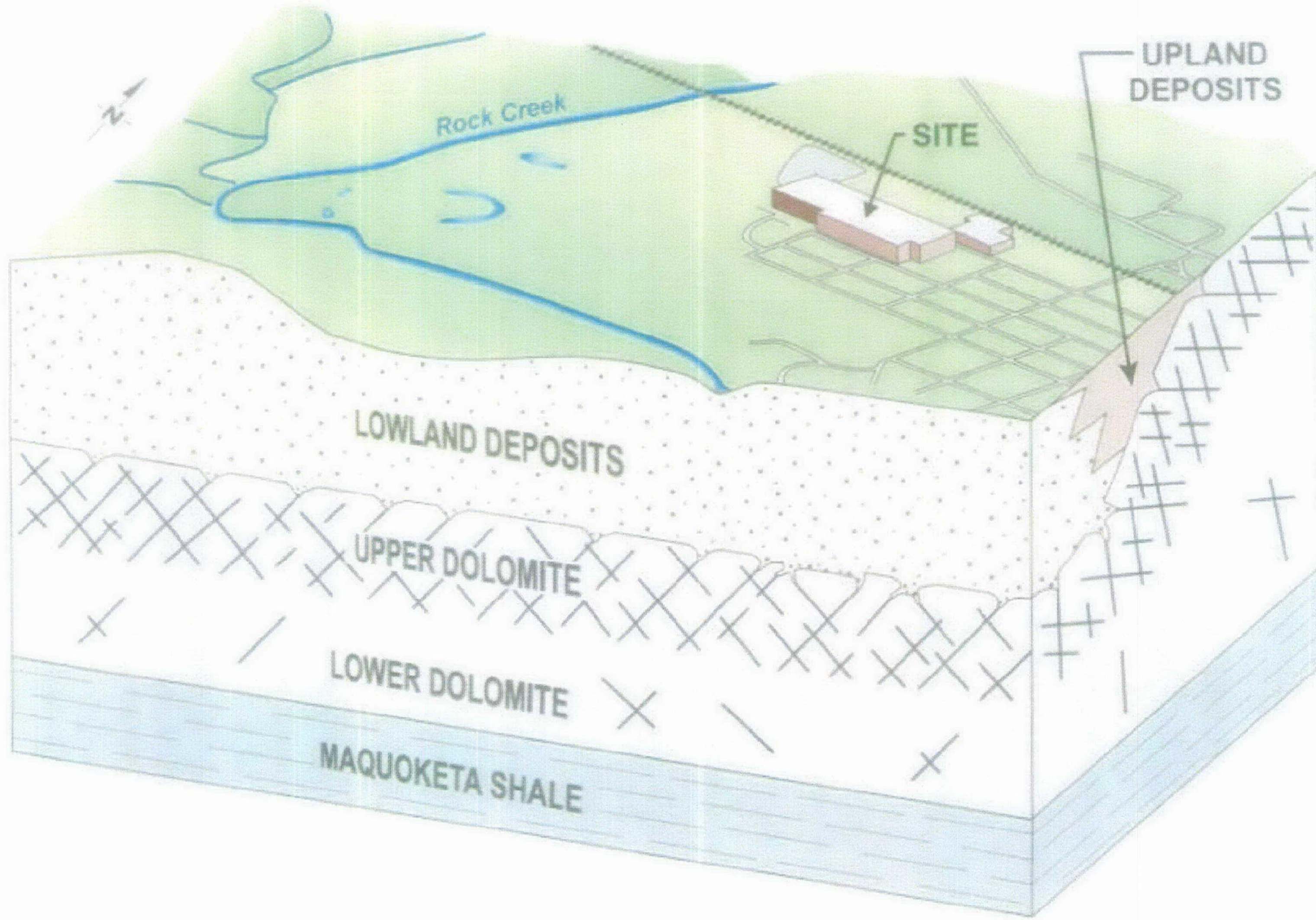

Figure 3-18. Conceptual hydrogeologic model.

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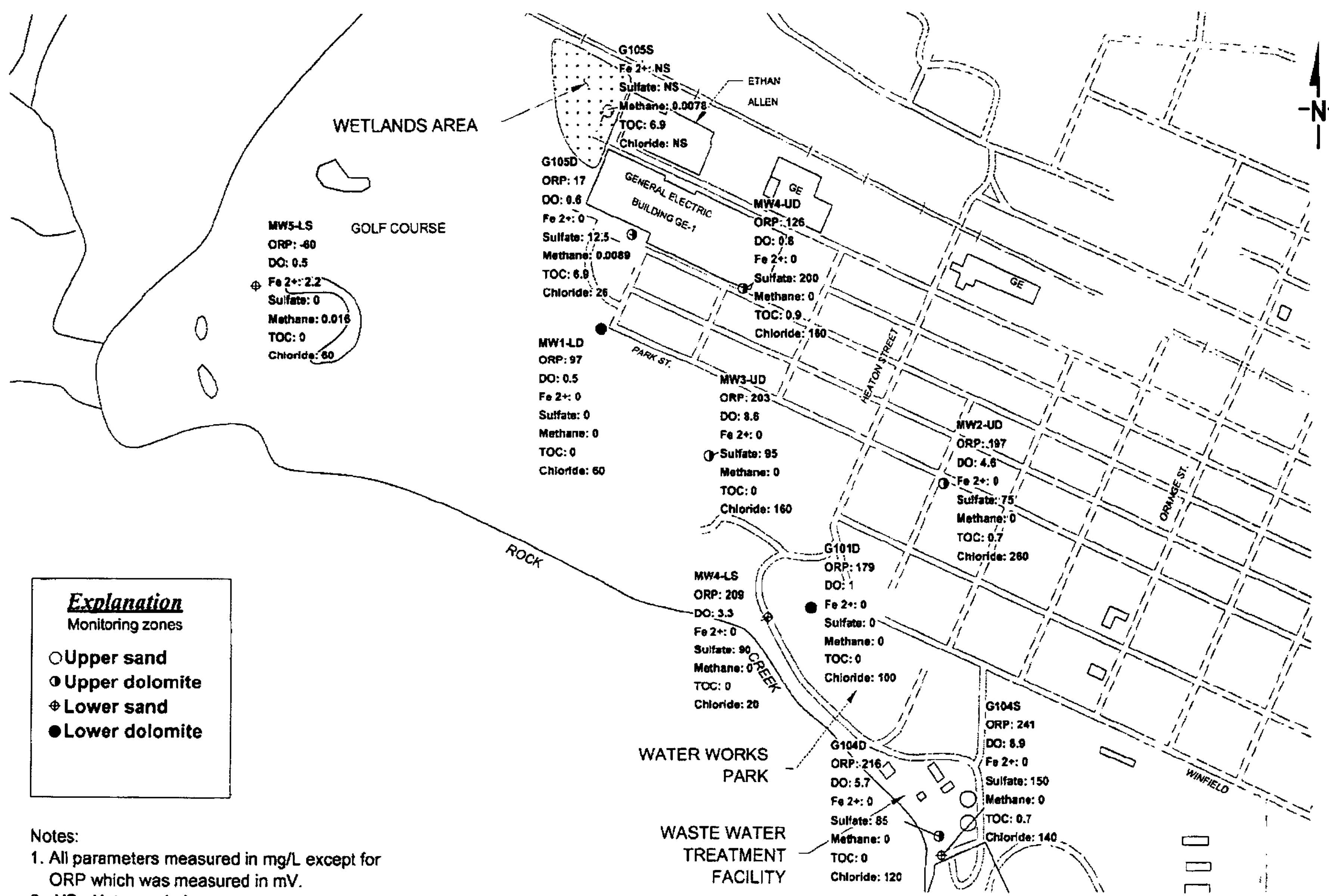

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Notes:
1. All parameters measured in mg/L except for ORP which was measured in mV.
2. NS: Not sampled

Figure 4-12. Results of groundwater geochemical analyses, October 1999.

Figure 4-13. Estimates of first order natural attenuation rates for TCE from time series plots.

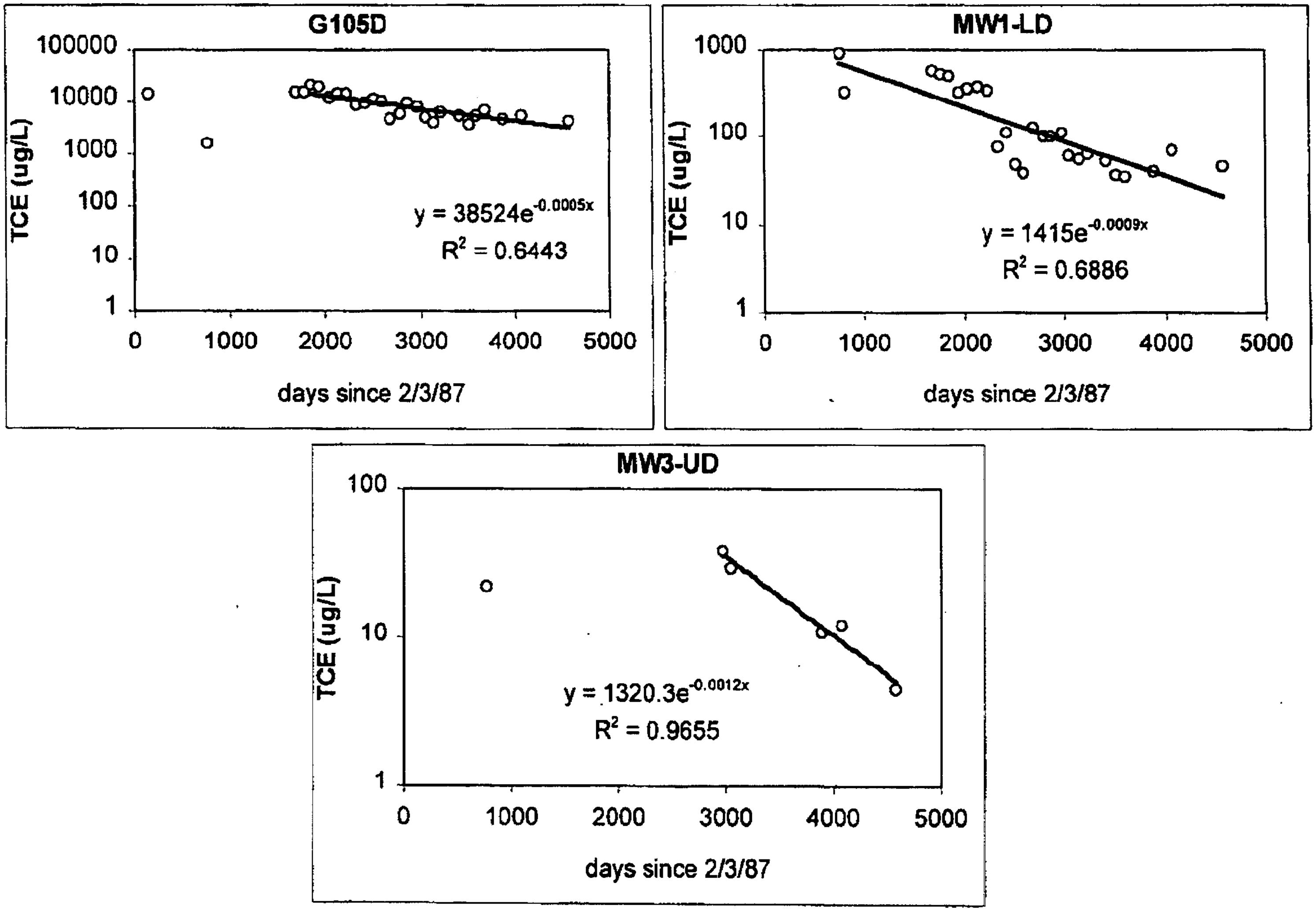
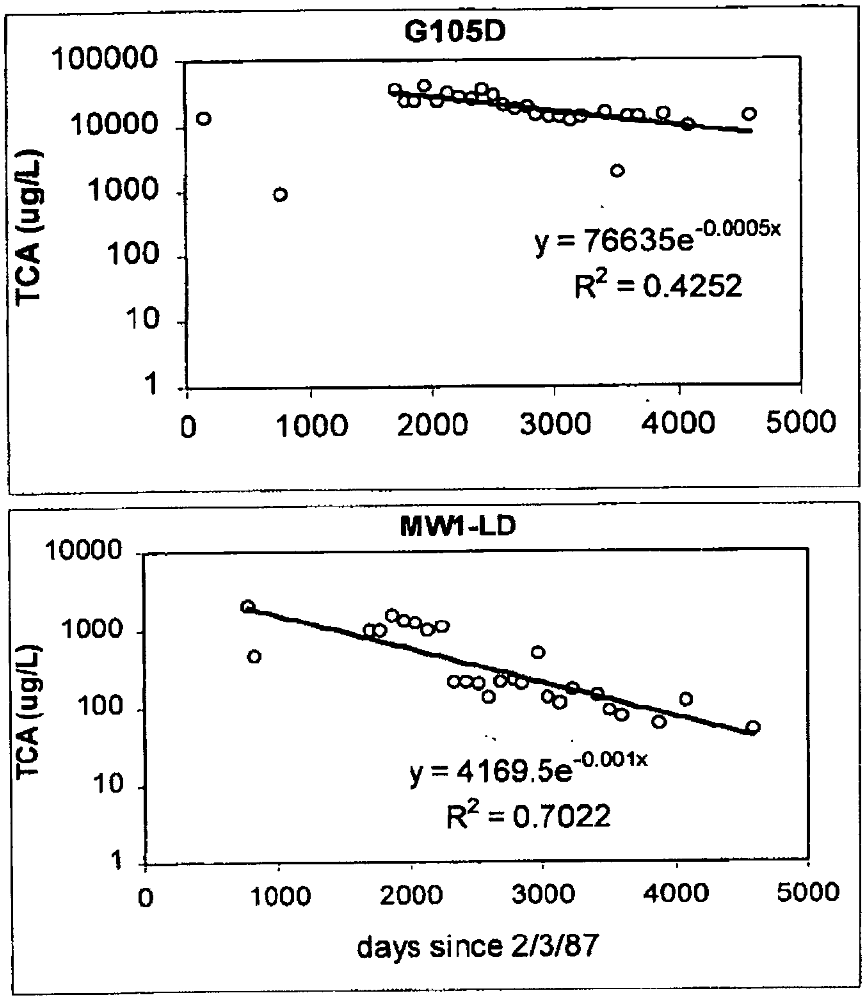


Figure 4-14. Estimates of first order natural attenuation rates for 1,1,1-TCA from time series plots.



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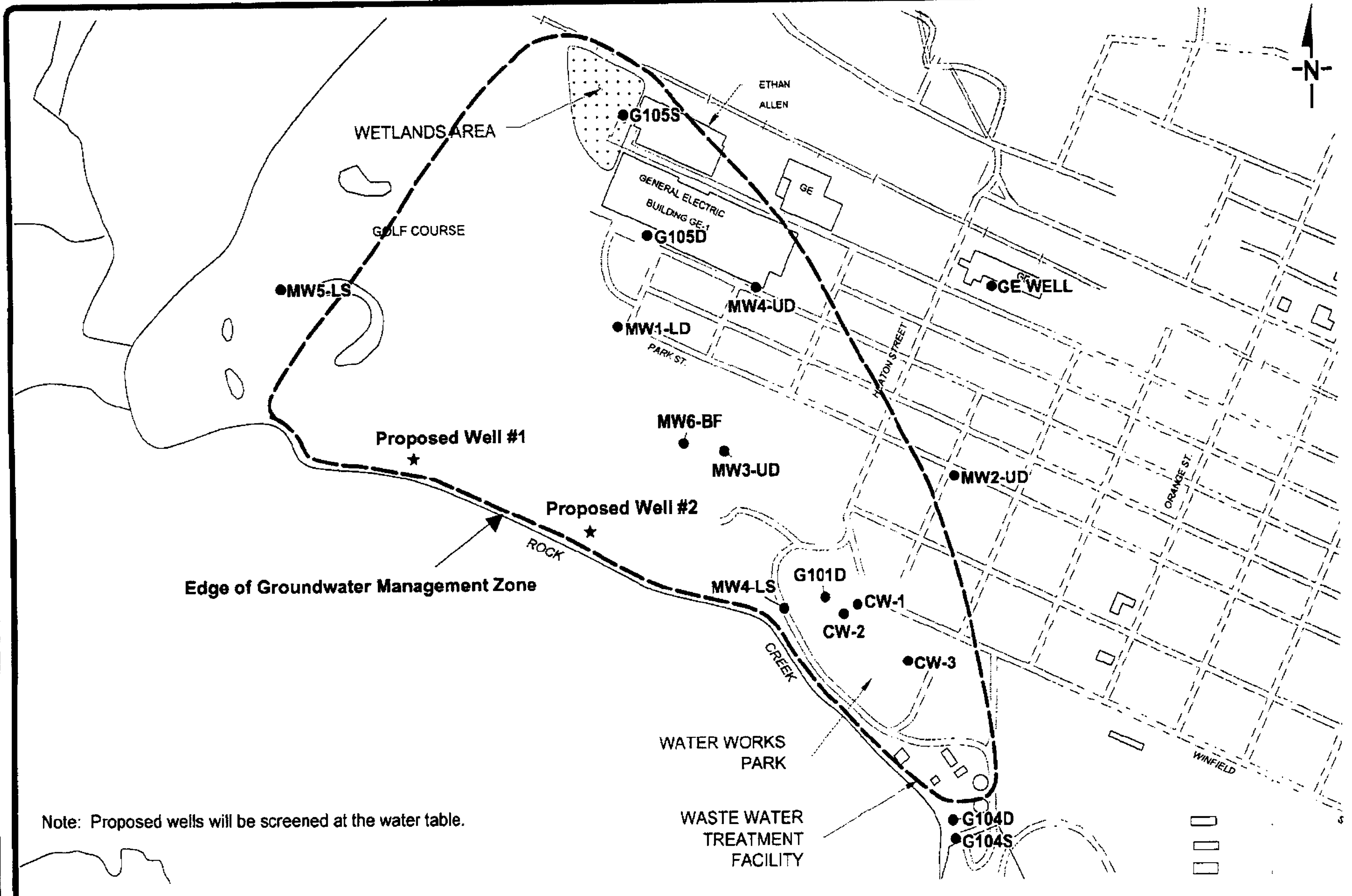

Note: Proposed wells will be screened at the water table.

Figure 5-1. Groundwater management zone, Morrison, Illinois.

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Table 2-5. Natural attenuation parameters measured during October 1999 sampling event.

Parameter	Method	Use
Dissolved Oxygen (DO)	Flow-through cell and CHEMets K-7402 + R-7512	Presence of DO $\geq$ 1indicates relatively oxidizing conditions. DO $\geq$ 1 mg/L inhibits biodegradation of PCE and TCE. However, DO can enhance biodegradation of DCE and VC. DO does not affect abiotic degradation of 1,1,1- TCA nor 1,1-DCA..
Nitrate	Field: Hach 8039 -or- Lab: IC E300	Presence indicates relatively oxidizing conditions. Nitrate can inhibit biodegradation of PCE and TCE. Does not affect abiotic decay of 1,1,1-TCA.
Dissolved iron (Fe^{II})	Hach 8146	Presence indicates anaerobic, iron-reducing conditions. Conditions are generally favorable for anaerobic biodegradation of all chlorinated compounds. Does not affect abiotic decay of 1,1,1-TCA.
Sulfate	Field: Hach 8051 -or- Lab: IC E300	Presence at relatively high concentrations (e.g., > 20 mg/L) may inhibit reductive dechlorination to some extent. Does not affect abiotic decay of 1,1,1-TCA.
Sulfide	Hach 8131 or CHEMets K-9510 + R-9510	Presence indicates anaerobic, reducing conditions; such conditions are favorable for anaerobic biodegradation of PCE, TCE, and 1,1,1-TCA.
Methane, ethane, and ethene	Kampbell et al, 1998 or SW3810 Modified	Presence of methane indicates strongly reducing conditions; conditions that are very favorable for anaerobic biodegradation of PCE, TCE, and 1,1,1-TCA. Ethane and ethene are endproducts of chlorinated solvent biodegradation, and therefore provide direct proof of contaminant destruction.
Oxidation-reduction potential (ORP)	Flow-through cell	Gross measure of whether conditions favor or disfavor anaerobic biodegradation of chlorinated solvents. In general, negative values favor anaerobic degradation, while positive values above 100 disfavor anaerobic degradation. Positive values can favor oxidative degradation of DCE and VC.
Chloride	Field: Hach 8-P -or- Lab: IC E300	This is a degradation end product indicative of chlorinated solvent destruction.
Total organic carbon (TOC)	SW9060	Presence indicates conditions that favor anaerobic biodegradation of PCE, TCE, and 1,1,1-TCA.

Table 2-6. Staff gage readings in Rock Creek in the Town of Morrison, Morrison, Illinois.

Staff Gage	Read By	Date	Time	Water Level (in.)	Area (sq. ft.)	Reading 1 (fps)	Reading 2 (fps)	Reading 3 (fps)	Flow Rate (cfs)
SG-1	KMB	(installed)		12.00	96.0	0.00	0.00	0.00	0.00
SG-2	KMB	(installed)		18.00	75.4	0.00	0.00	0.00	0.00
SG-3	KMB	(installed)		20.00	111.2	0.00	0.00	0.00	0.00
SG-4	KMB	(installed)		18.00	171.5	0.00	0.00	0.00	0.00
SG-1	KMB	10/21/99		11.75	95.2	2.21	2.19	2.08	205.63
SG-2	KMB	10/21/99		17.25	72.9	1.78	1.88	1.92	135.59
SG-3	KMB	10/21/99		19.50	109.4	0.79	1.05	0.79	95.91
SG-4	KMB	10/21/99		18.00	164.1	2.08	2.33	2.13	357.74
SG-1	KMB	10/27/99		11.25	93.5	2.20	2.56	2.47	225.34
SG-2	KMB	10/27/99		16.50	70.6	1.54	1.67	1.67	114.84
SG-3	KMB	10/27/99		19.25	108.5	1.10	1.08	1.11	118.99
SG-4	KMB	10/27/99		17.75	170.6	2.20	2.06	2.02	357.12
SG-1	KMB	11/2/99		10.25	90.1	2.23	2.33	2.26	204.83
SG-2	KMB	11/2/99		16.25	69.9	2.05	1.80	1.67	128.62
SG-3	KMB	11/2/99		18.75	106.7	0.78	0.93	0.95	94.61
SG-4	KMB	11/2/99		17.25	168.8	1.55	1.97	1.88	303.84
SG-1	KMB	11/8/99		9.75	88.4	1.02	0.97	0.93	86.04
SG-2	KMB	11/8/99		15.75	68.3	0.88	1.00	0.80	61.01
SG-3	KMB	11/8/99		18.25	107.8	0.36	0.44	0.35	41.32
SG-4	KMB	11/8/99		17.00	168.0	0.70	0.73	0.76	122.64
SG-1	KMB	11/17/99	1:36 PM	8.75	85.1	0.90	0.98	0.90	78.86
SG-2	KMB	11/17/99	1:47 PM	15.00	66.0	0.82	0.82	0.71	51.70
SG-3	KMB	11/17/99	12:56 PM	17.25	101.2	0.49	0.44	0.53	49.25
SG-4	KMB	11/17/99	1:12 PM	16.25	164.6	0.85	0.93	0.92	148.14

Table 3-2. Summary of Hydraulic Conductivity Measurements at the Morrison Site.

Well	Slug Test Result (cm/sec)	Pump Test Result (cm/sec)	Geometric Mean Pump Test K (cm/sec)	Unit
G101D	2.8E-04	3.0E-06		Lower Dolomite
MW1-LD	ND[1]	9.4E-08		Lower Dolomite
			5.3E-07	Lower Dolomite
G104D	1.8E-02	9.3E-04		Upper Dolomite
G104D		2.0E-03[1]		Upper Dolomite
G105D	ND	4.5E-03		Upper Dolomite
MW2-UD	5.5E-03	8.2E-05		Upper Dolomite
MW3-UD	1.4E-02	3.9E-04		Upper Dolomite
MW4-UD	ND	3.0E-05		Upper Dolomite
			3.9E-04	Upper Dolomite
G105S	2.1E-05	ND		Upper Dolomite/Upland Deposits
			ND	Upper Dolomite/Upland Deposits
G104S	3.2E-03	9.3×10^{-4}		Upper Dolomite/Lowland Deposits
G104S		1.2E-03[2]		Upper Dolomite/Lowland Deposits
MW4-LS	4.9E-02	2.4E-03		Upper Dolomite/Lowland Deposits
MW5-LS	3.8E-02	7.9E-04		Upper Dolomite/Lowland Deposits
			1.2E-03	Upper Dolomite/Lowland Deposits

ND- Not Determined
[1]Value based on use of observation well G104S
[2]Value based on use of observation well G104D

Notes:
(1) The geometric mean was calculated using single well test data for consistency.
(2) It should be noted that the tests with observation well provide more reliable values because they measure hydraulic properties over a greater zone of the aquifer and are less influenced by well losses. Close agreement between shallow and deep wells indicates low migration.

Table 3-5. Results of August 1999 analysis of chlorinated constituents in groundwater.

Well ID	PCE (ug/L)	TCE (ug/L)	111-TCA (ug/L)	12-DCE (tot) (ug/L)	11-DCE (ug/L)	11-DCA (ug/L)	VC (ug/L)
G101D	0	7.4	0	0	0	0	0
G104S	0	0	0	0	0	0	0
G104D	0	0	0	0	0	0	0
G105S	0	0	7.4	0	2	0	0
G105D	130	4300	14000	0	7900	110	0
MW1-LD	1.4	45	52	1.1	8.4	2	0
MW2-UD	17	0	0	0	0	0	0
MW3-UD	0	4.5	0	0	0	0	0
MW4-UD	0	500	22	50	8.3	0	0
MW4-LS	5.2	210	16	0	0	0	0
MW5-LS	0	0	0	0	0	0	0

0 = non detect

Table 4-3. Effect of electron acceptor conditions and redox potential on feasibility of CAH reductive dechlorination.

Biodegradation Process	Electron Acceptor	Redox Potential (mV at 25°C, pH =7.0)	Feasibility of Reductive Dechlorination[1]
Aerobic respiration	O_2	+820	
Denitrification	NO_3^-	+740	
Manganese reduction	Mn(IV)	+520	Possible
Iron reduction	Fe(III)	-50	
Sulfate reduction	SO_4^{-2}	-220	Optimal
Methanogenesis	CO_2	-240	

Notes:

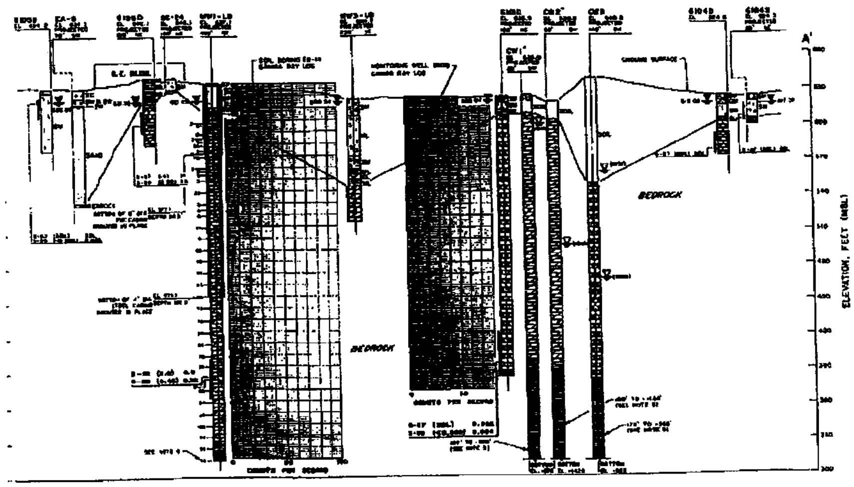
[1] Specification of "Possible" and "Optimal" ranges from Figure 6 of Region IV Suggested Practices (EPA 1997a); Bouwer, 1994.

Table 4-4. Summary of attenuation rates estimated from time series plots for PCE, TCE, and 1,1,1-TCA.

Well	PCE				TCE				TCA			
	Aug-99 Conc. (ug/L)	Atten. Rate (yr^{-1})			Aug-99 Conc. (ug/L)	Atten. Rate (yr^{-1})	Half Life (yrs)	95% C.I. for rate	Aug-99 Conc. (ug/L)	Atten. Rate (yr^{-1})	Half Life (yrs)	95% C.I. for rate
GE-1 Wells												
G105D	130	0	*No decreasing trend*		4300	0.201	3.5	± 0.0675	14000	0.183	3.8	± 0.1025
MW1-LD	1.4	0	*No decreasing trend*		45	0.336	2.1	± 0.0950	52	0.37	1.9	± 0.101
MW4-UD	0				500	0	*No decreasing trend*		22	0	*No decreasing trend*	
Area Wide Network Wells												
G101D	0				7.4	0	*No decreasing trend*		0			
G104S	0				0				0			
G104D	0				1	0	*No decreasing trend*		0			
G105S	0				0				7.4	0	*No decreasing trend*	
MW2-UD	17	0	*No decreasing trend*		0				0			
MW3-UD	0				4.5	0.442	1.6	± 0.154	1	0	*No decreasing trend*	
MW4-LS	5.2	0	*No decreasing trend*		210	0	*No decreasing trend*		16	0	*No decreasing trend*	
MW5-LS	0				0				0			

Exhibit 5

**Selected Materials from Appendix G of GeoTrans'
Natural Attenuation and Groundwater Modeling Report
(dated October 2001)**



LEGEND:

- CLAY - CL
- SILT - ML
- SAND - SM, SC, SW, SP
- GRAVEL - GM, GW, GP
- LIMESTONE
- DOLOMITE
- SHALE
- GRAVEL PACK INTERVAL
- WELL DECOMMISSIONED
- GROUND WATER ELEVATION (FEET, MSL) (SEE NOTE 2)

NOTES:

1. FOR CROSS SECTION LOCATION SEE DWG 96-159-E56.
2. GROUND WATER ELEVATIONS MEASURED ON 3-30-89.
3. WATER TABLE NOT ENCOUNTERED AT BORING SC-24.
4. LOCATION OF BORING EA-6 WAS APPROXIMATED.
5. GROUND WATER EXTRACTION ZONE INTERVAL (FEET, MSL).
6. ROCK QUALITY DESIGNATION (RQD) AT DEPTH INTERVAL.

– MODIFIED FROM HARRINGTON ENGINEERING AND CONSTRUCTION (1996)

N

Figure 2-3. Generalized cross section A-A' in site vicinity.

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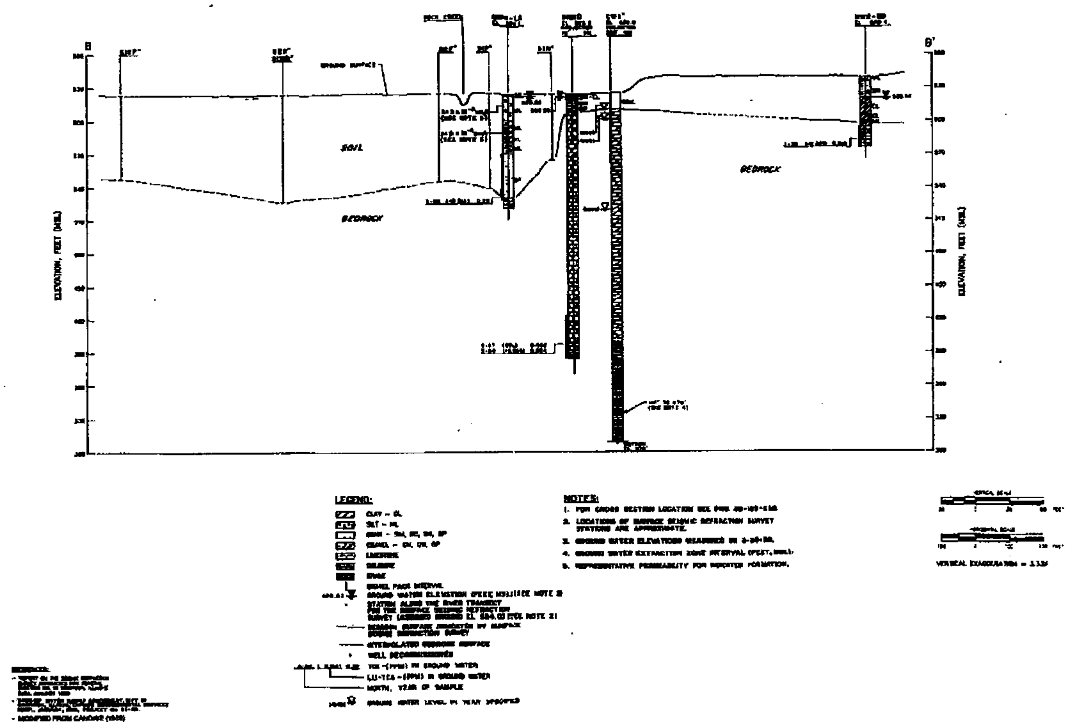

Figure 2-4. Generalized cross section B-B' at site.

GeoTrans, Inc.

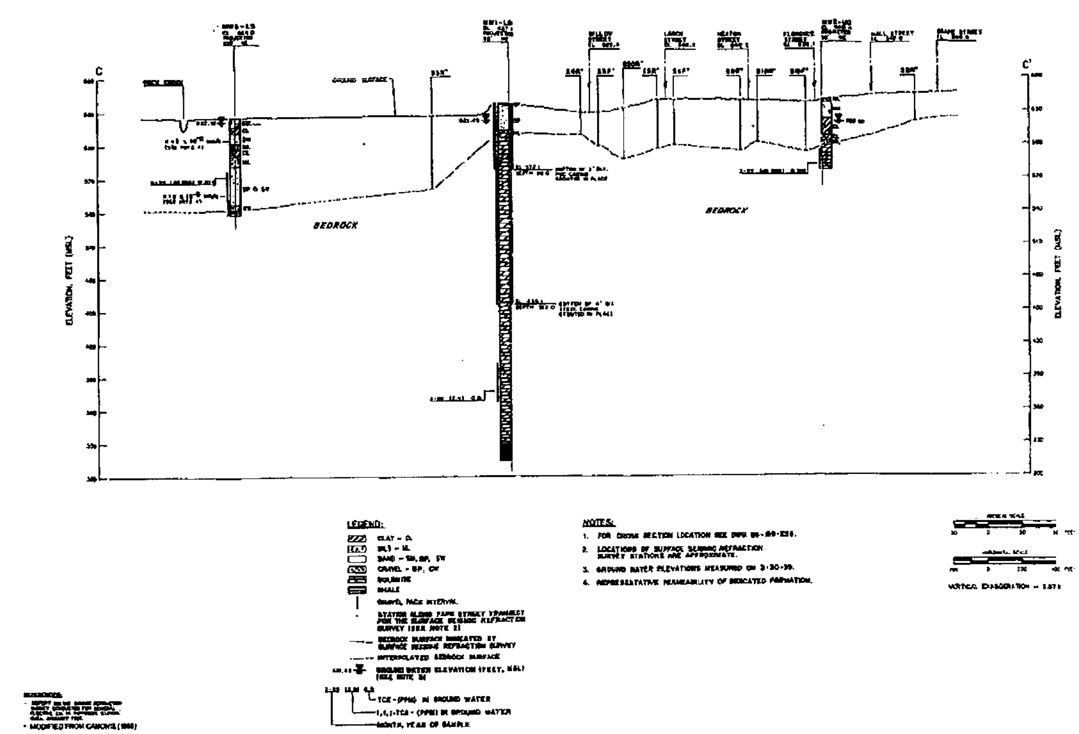

Figure 2-5. Generalized cross section C-C' at site.

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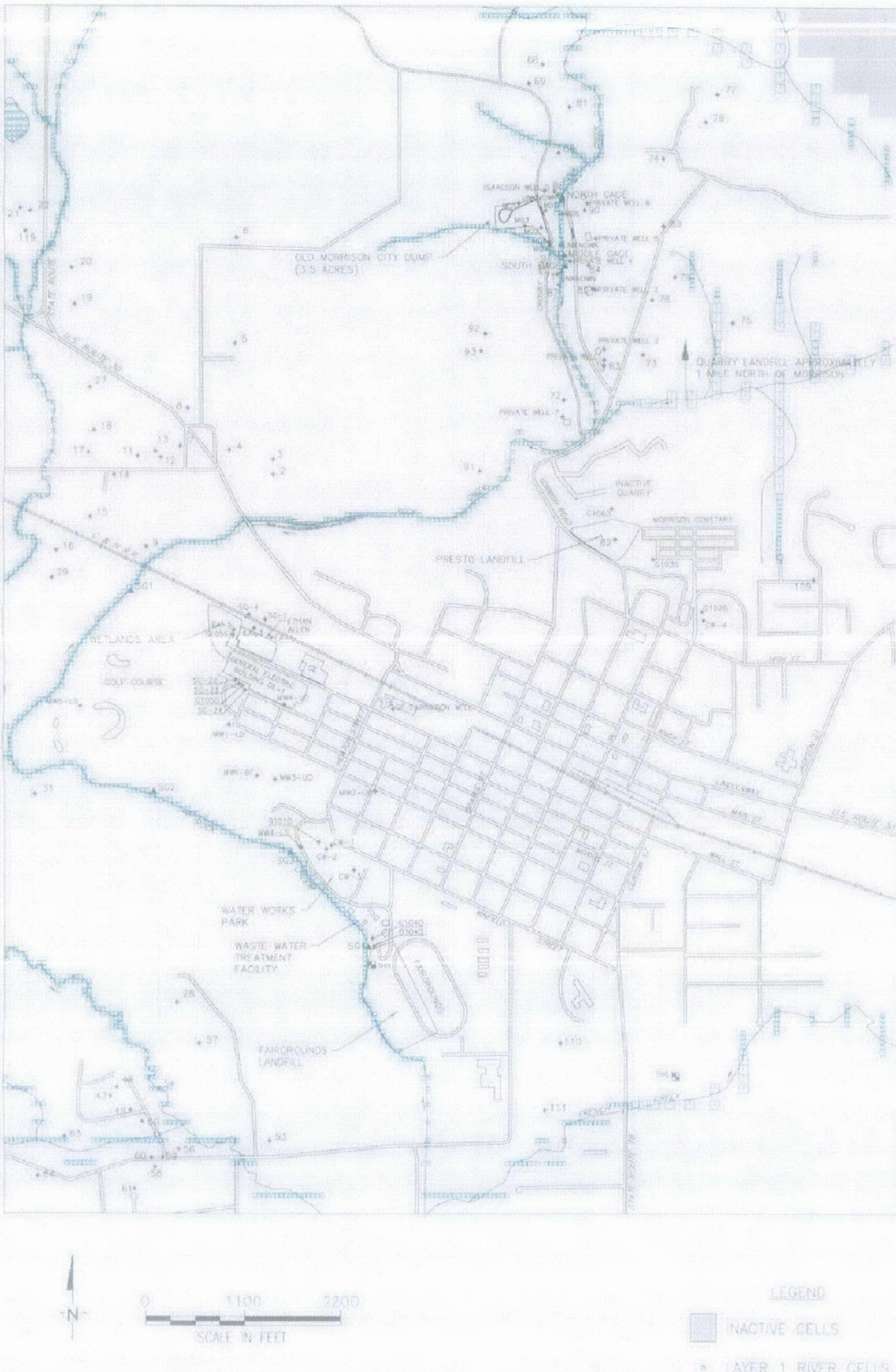

Figure 4-1. Model area domain with flow boundary conditions.

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LITHOLOGY

MONITORING ZONES	STRATIGRAPHIC UNIT	HYDROSTRATIGRAPHIC UNIT	MODEL LAYER	THICKNESS (ft)	HYDRAULIC CONDUCTIVITY (ft/day)
UPLAND DEPOSITS	GLACIAL TILL	UNCONSOLIDATED SEDIMENTS/ UPPER DOLOMITE AQUIFER	1	50	0.2 (Upland Deposits) 7.0 (Lowland Deposits) 14 (Upper Dolomite)
LOWLAND DEPOSITS	ALLUVIUM, VALLEY FILL DEPOSITS				
UPPER DOLOMITE	SILURIAN DOLOMITE	UPPER DOLOMITE AQUIFER	2	25	14
			3	30	14
			4	20	14
			5	25	14
LOWER DOLOMITE		LOWER DOLOMITE AQUIFER	6	35	0.0085
			7	38	0.0085
			8	2 to 73	0.0085
	MAQUOKETA SHALE	MAQUOKETA SHALE CONFINING UNIT	NO FLOW		

Figure 4-2. Generalized hydrostratigraphic column with corresponding model layers and estimated range in parameter values.

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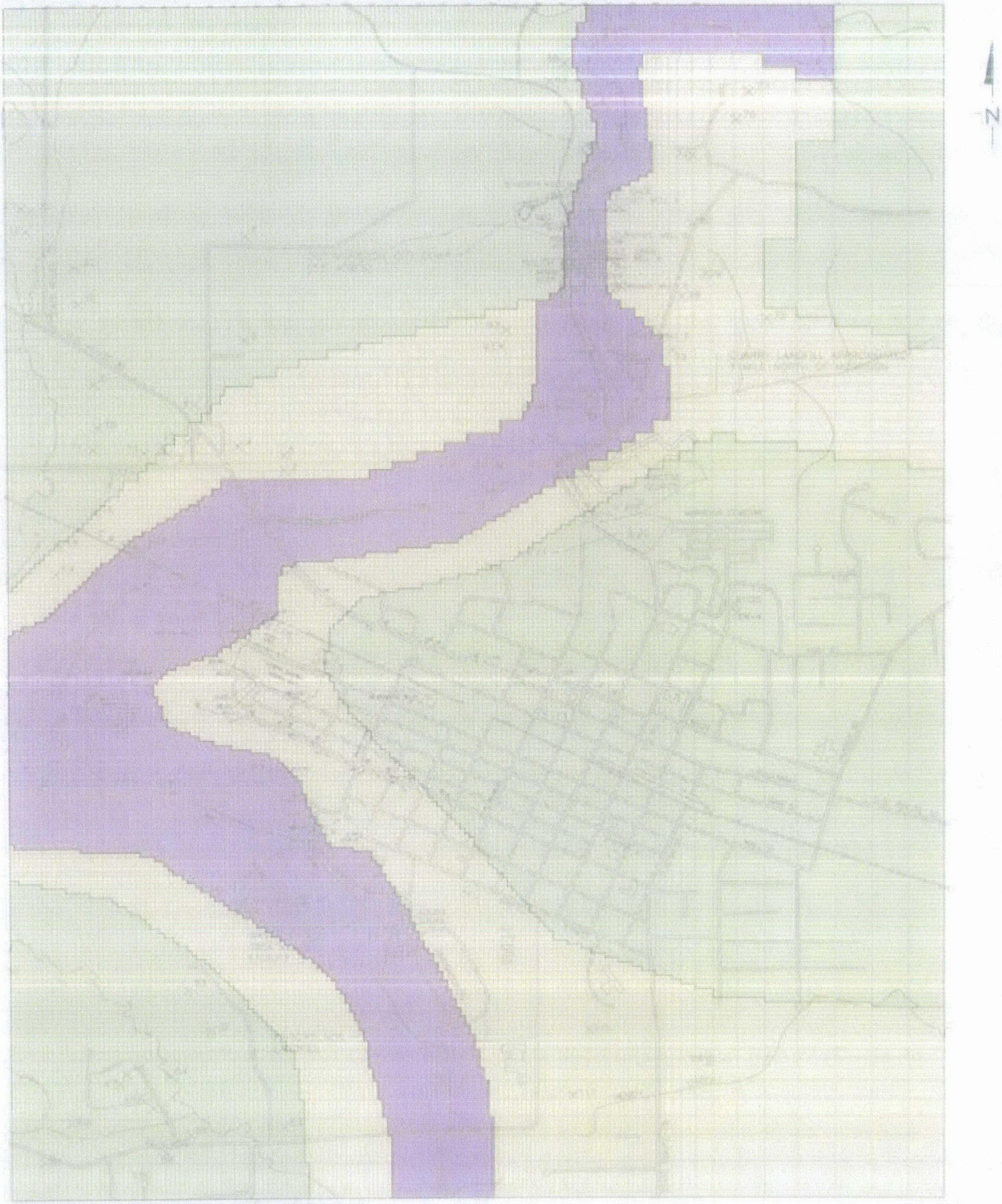

UPPER DOLOMITE	LOWLAND CHANNEL DEPOSITS	UPLAND TILL DEPOSITS
HYDRAULIC CONDUCTIVITY (ft/day)		
14	7	2
POROSITY		
0.20	0.30	0.35

0 1600 3200
SCALE IN FEET

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Figure 4-3. Lithologic Zonation in model layer 1.

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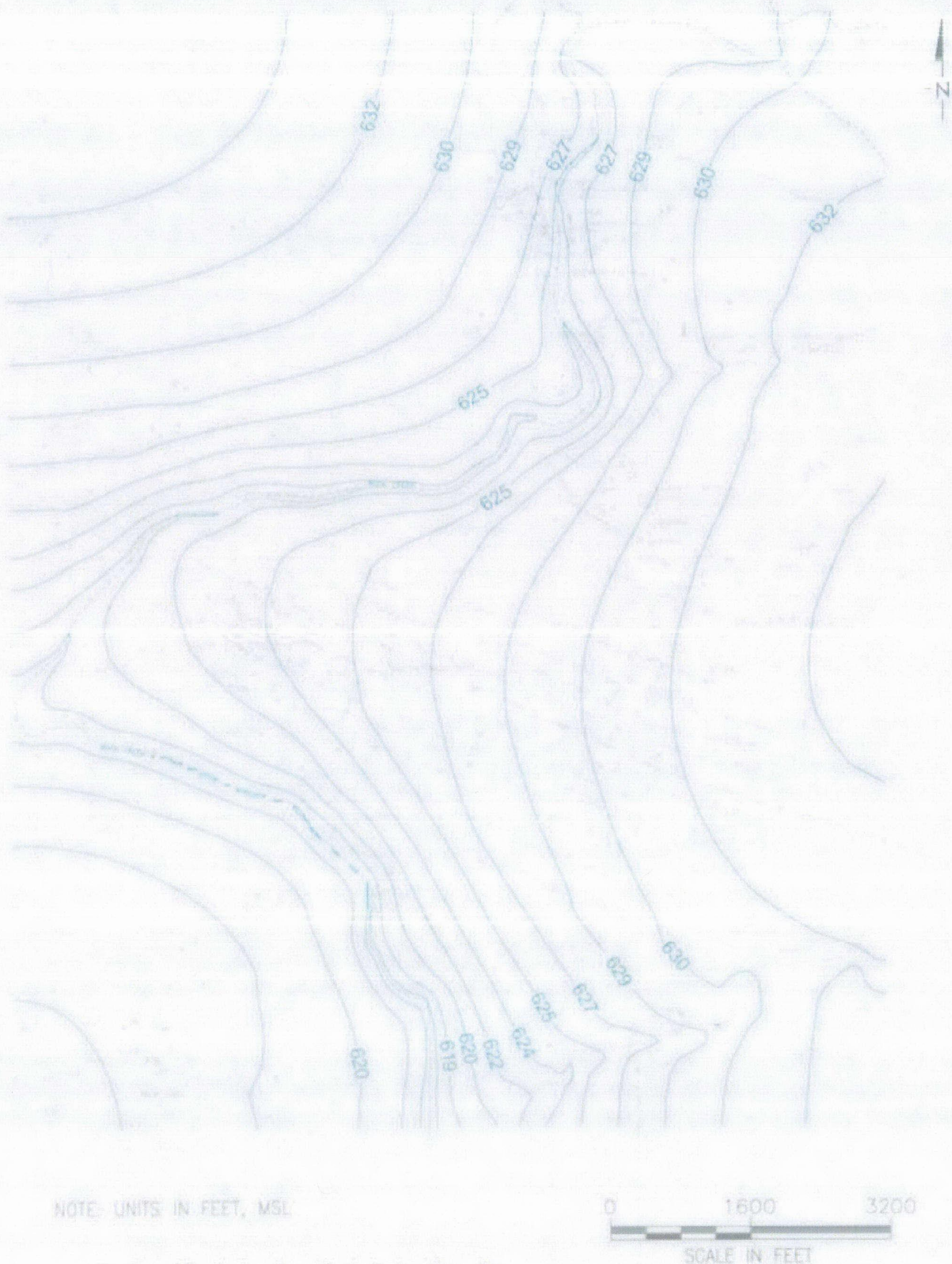

Figure 5-3. Model simulated hydraulic heads in model layer 1 (unconsolidated sediments and upper dolomite).

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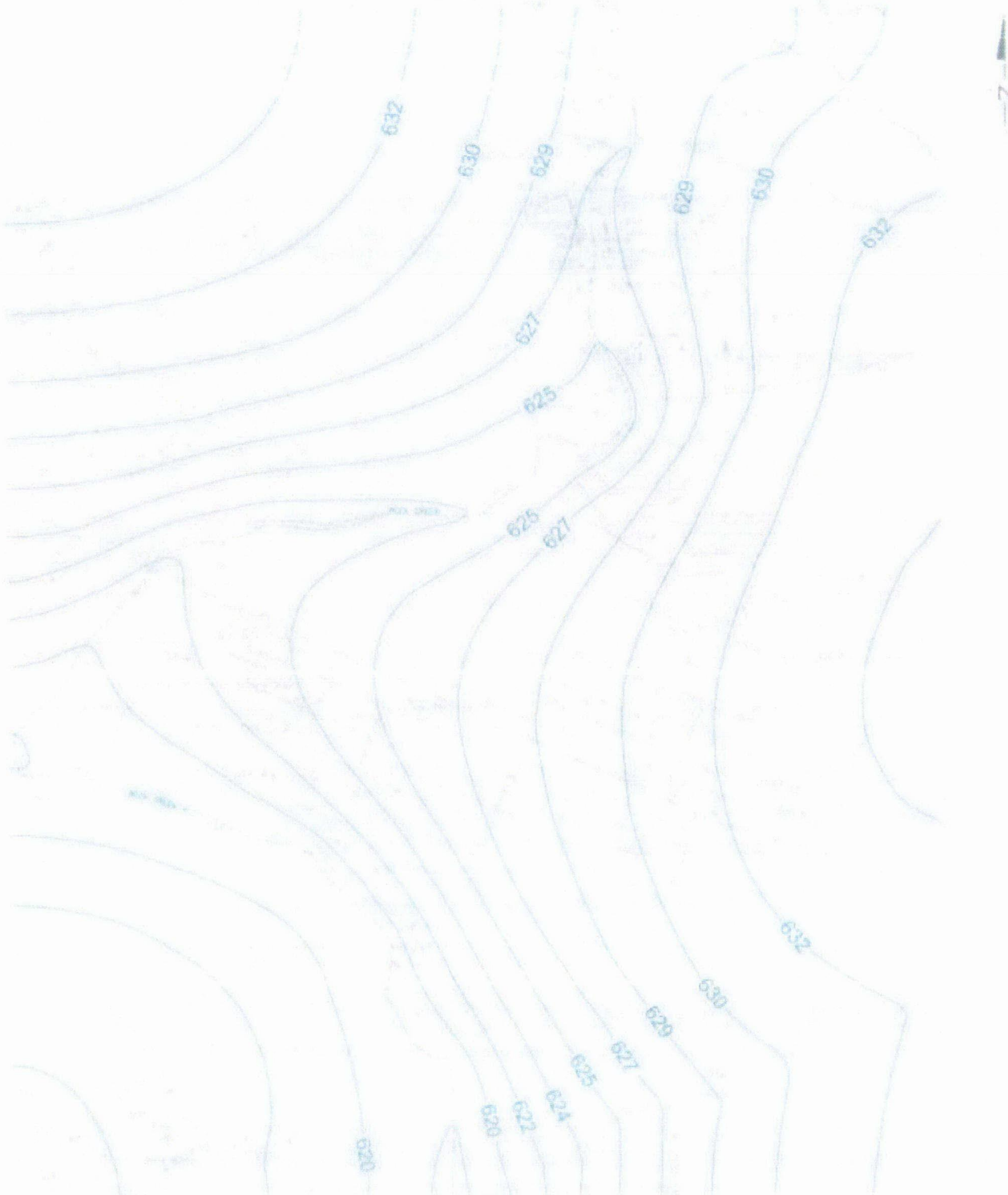
P22502\3A.DWG



NOTE: UNITS IN FEET, MSL

0 1600 3200

SCALE IN FEET

Figure 5-4. Model simulated hydraulic heads in model layer 2 (top of the upper dolomite).

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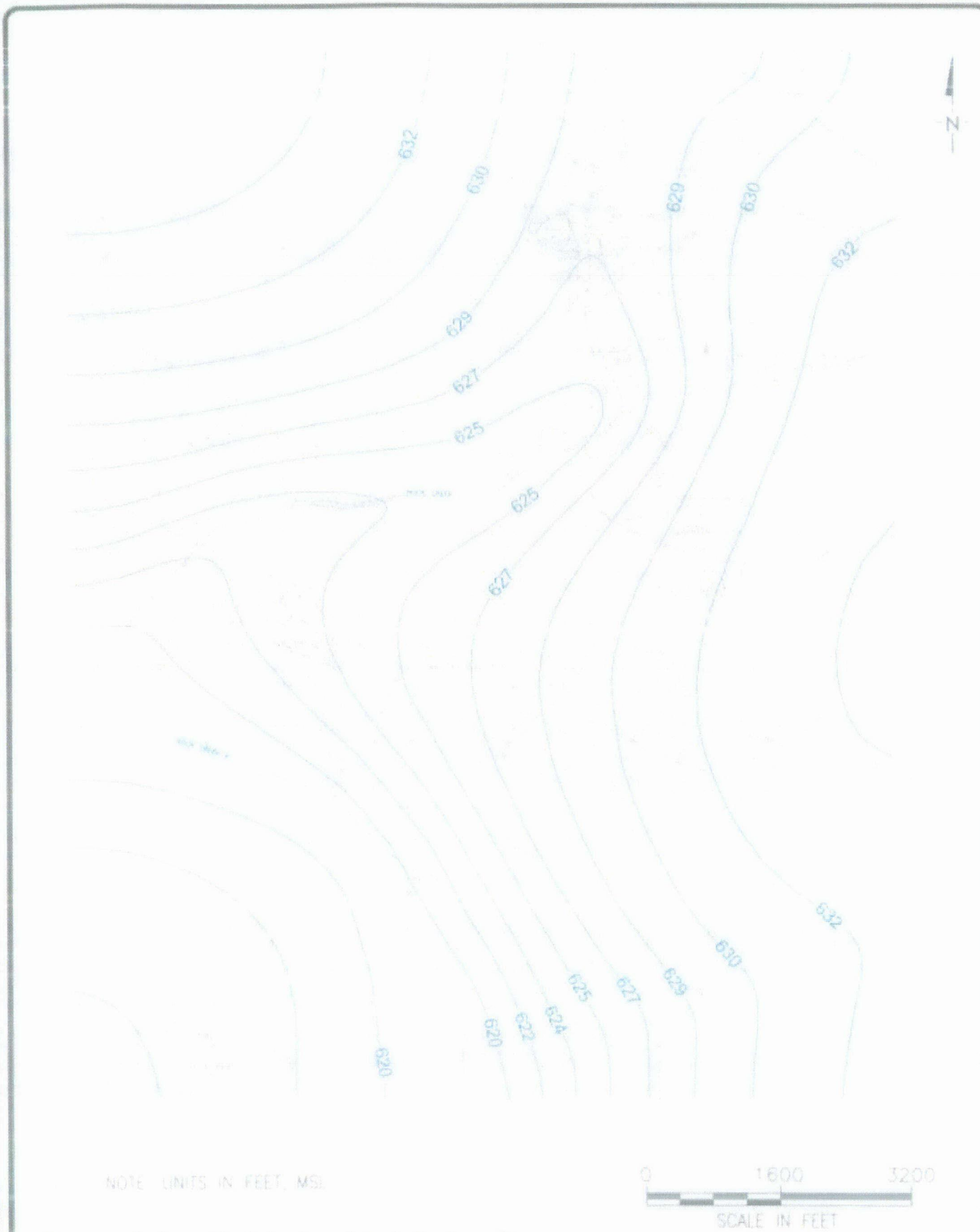

Figure 5-5. Model simulated hydraulic heads in model layer 6 (top of the lower dolomite).

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P225015A.DWG

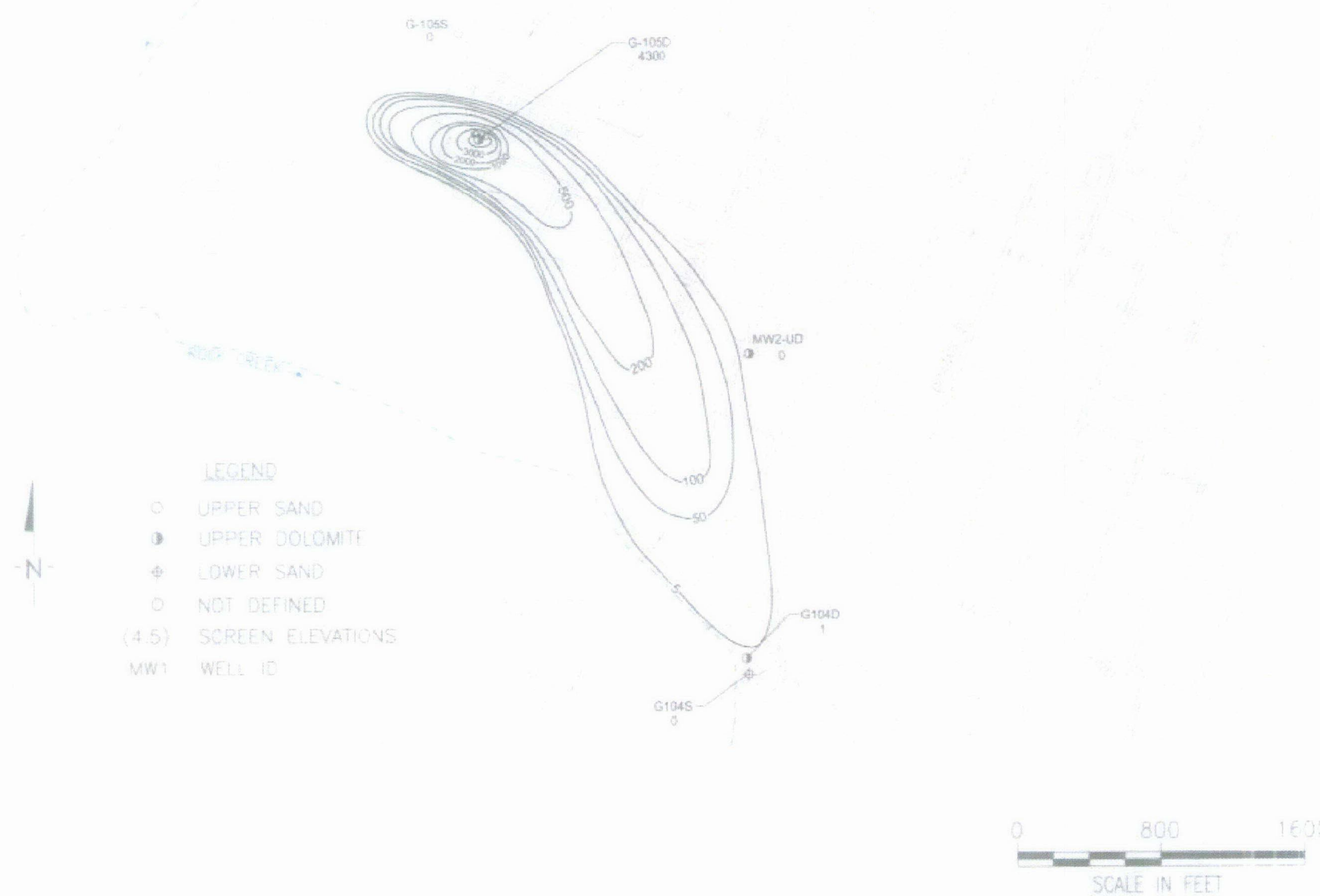

Figure 5–9. Initial TCE concentrations based on September 1999 groundwater sampling data in model layer 1.

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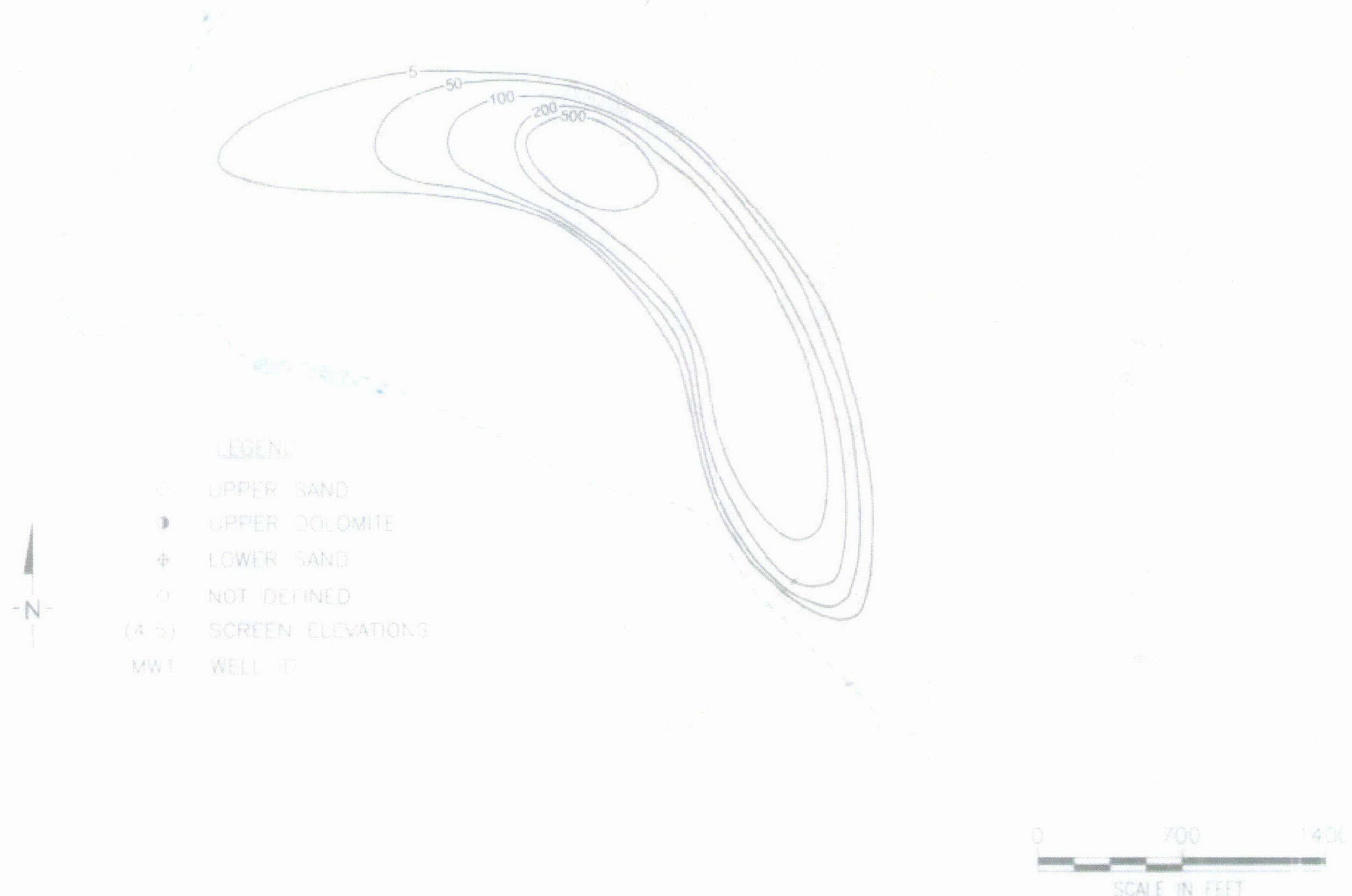

Figure 5-10. Initial TCE concentrations based on September 1999 groundwater sampling data in model layer 2.

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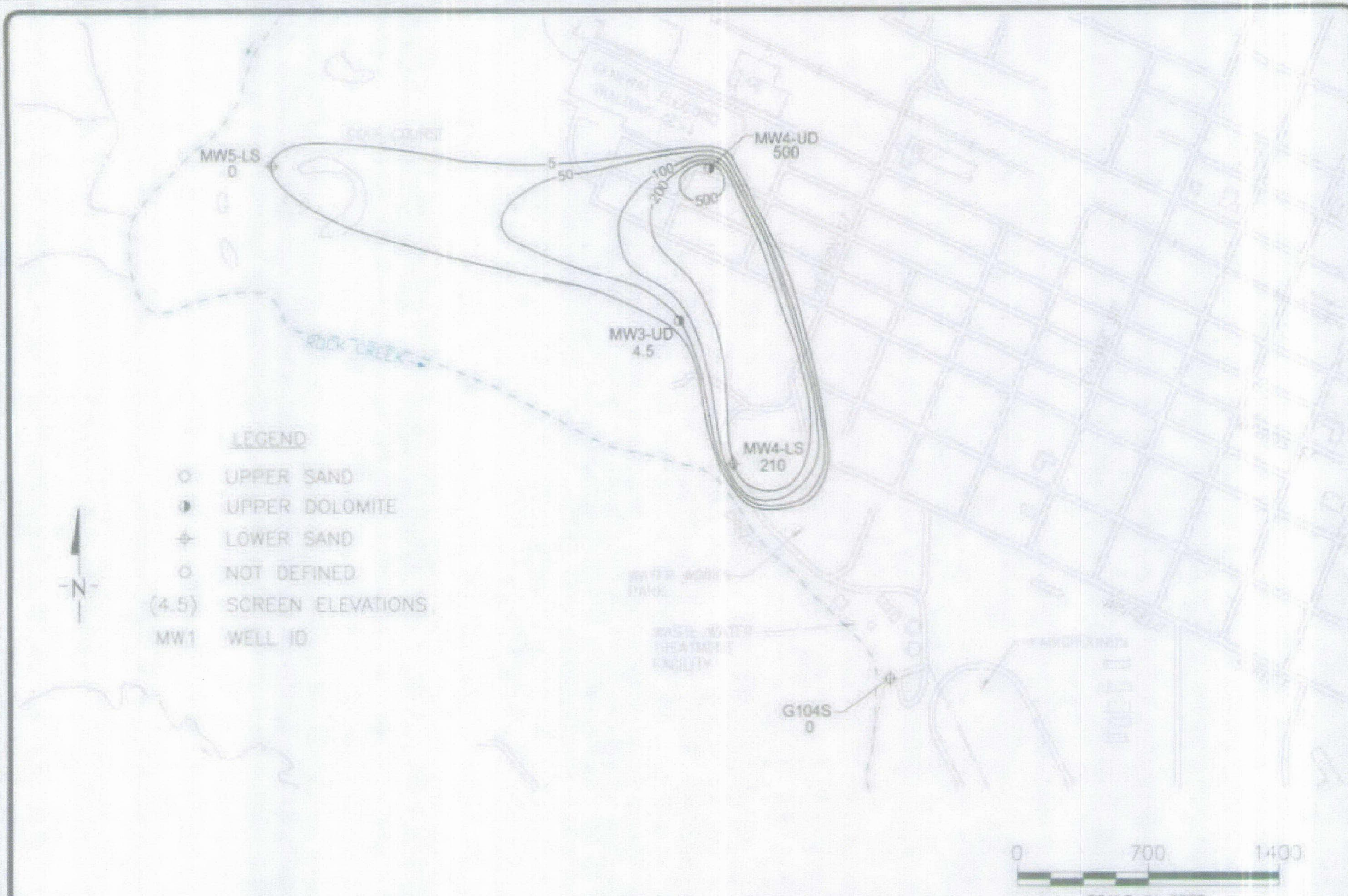

Figure 5-11. Initial TCE concentrations based on September 1999 groundwater sampling data in model layer 3 (elevations 550 and 520 feet, msl).

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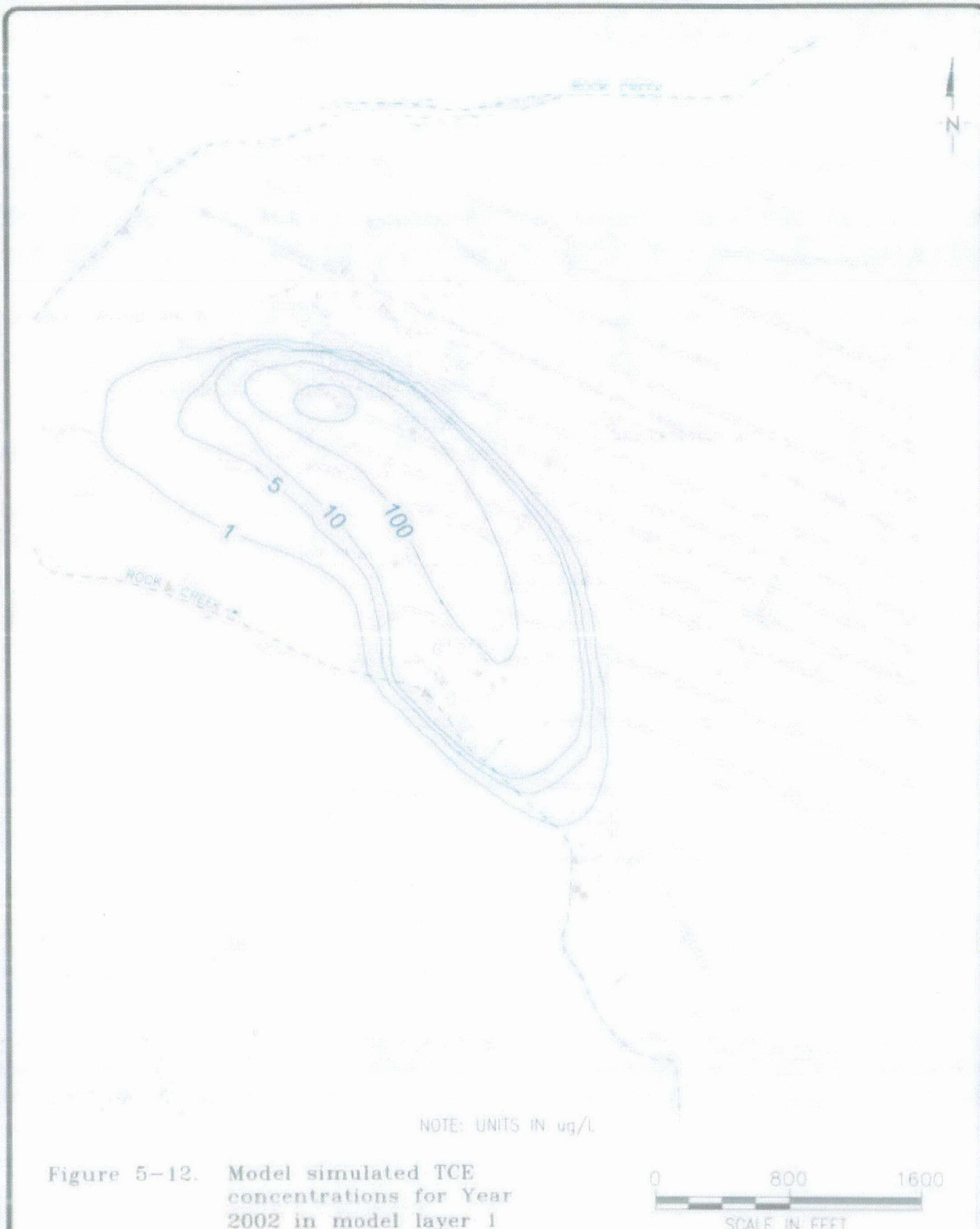

Figure 5-12. Model simulated TCE concentrations for Year 2002 in model layer 1 (unconsolidated sediments and upper dolomite) with 6.9 year degradation half life.

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Figure 5-13. Model simulated TCE concentrations for Year 2002 in model layer 2 (top of the upper dolomite) with 6.9 year degradation half life.

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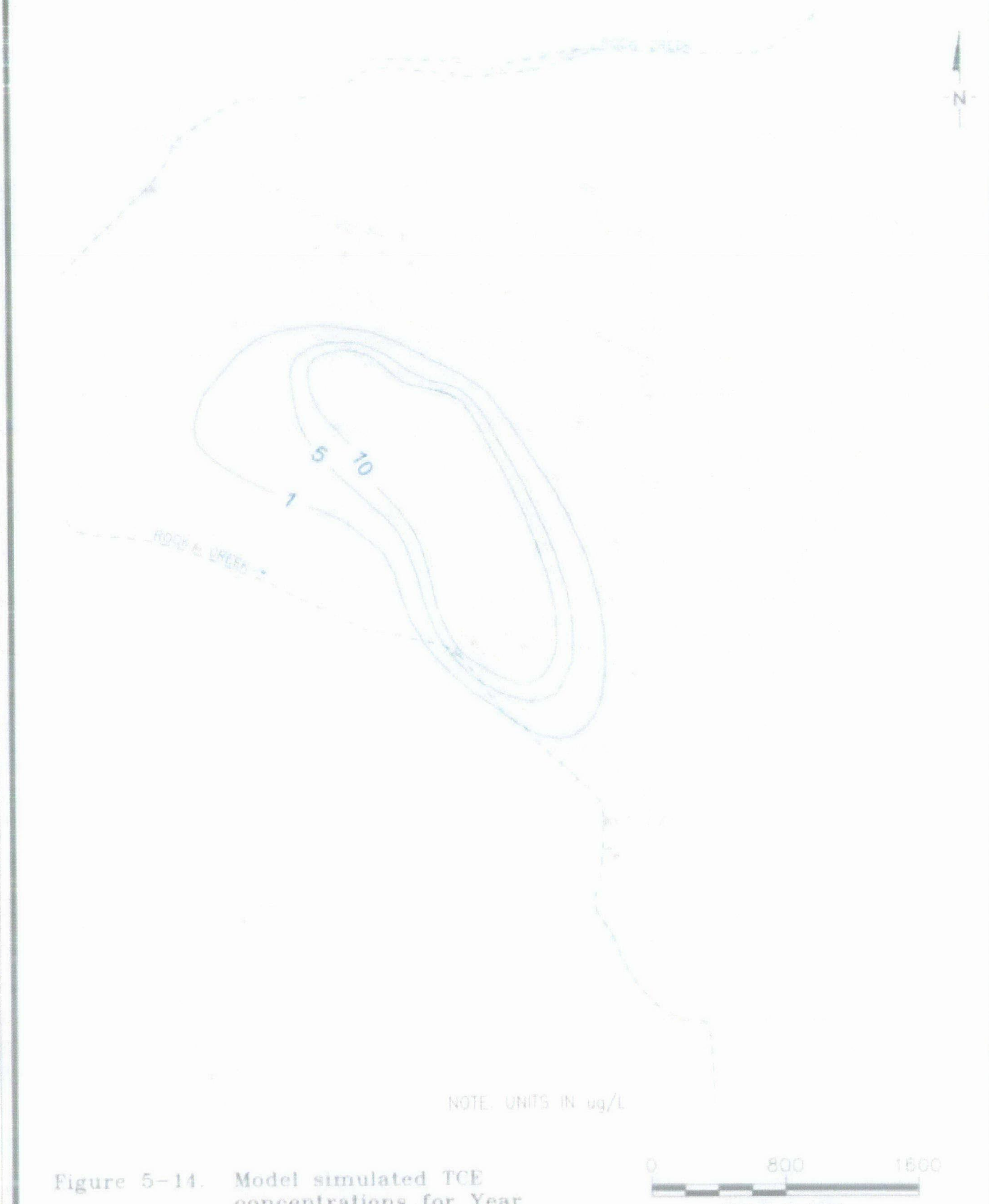

Figure 5-14. Model simulated TCE concentrations for Year 2002 in model layer 6 (top of the lower dolomite) with 6.9 year degradation half life.

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P225031A.DWG

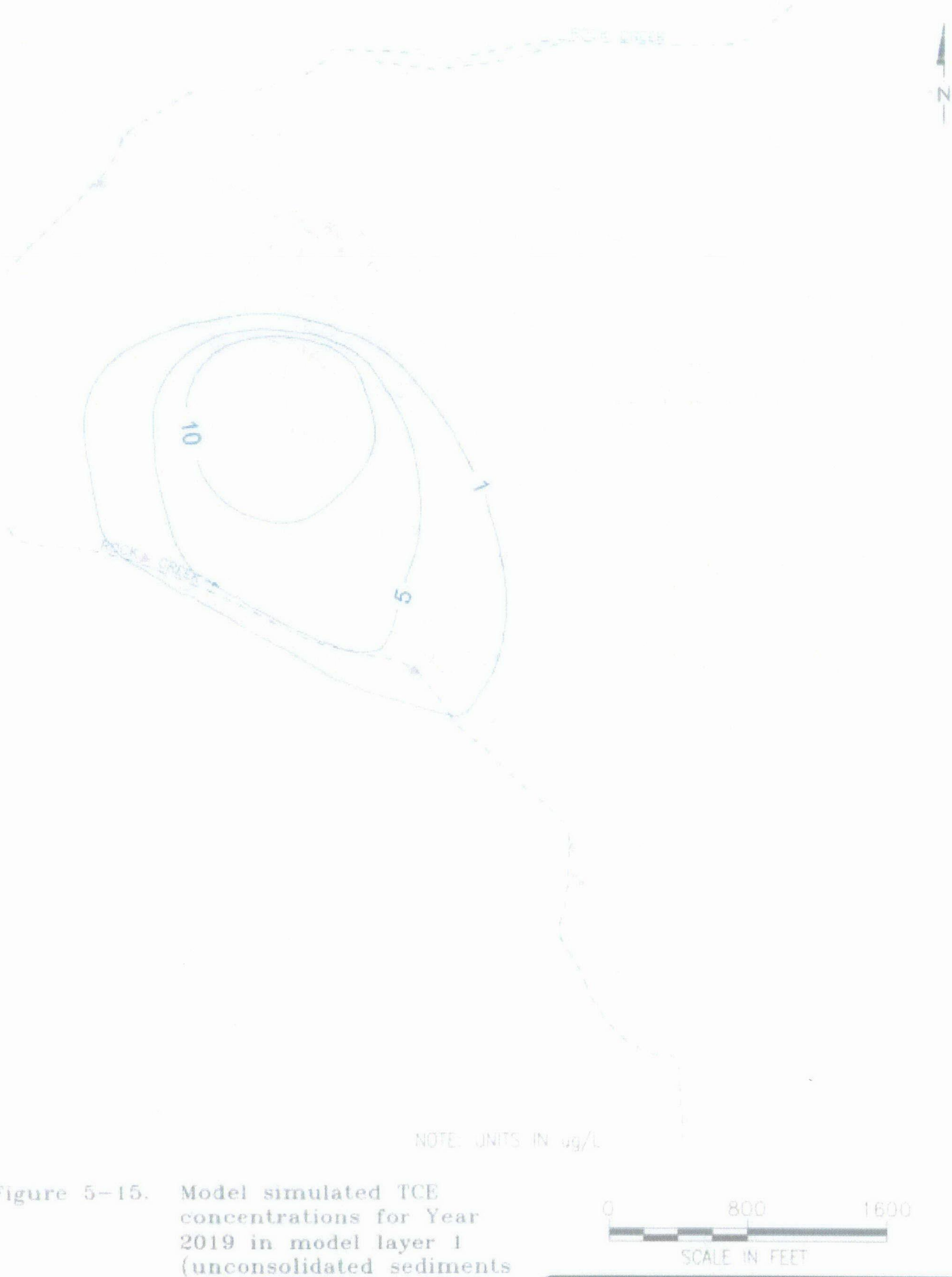

Figure 5–15. Model simulated TCE concentrations for Year 2019 in model layer 1 (unconsolidated sediments and upper dolomite) with 6.9 year degradation half life.

GeoTrans, Inc. A TETRA TECH COMPANY

P225036A.DWG

Document 10 – Part 2

Expert Report of Konrad J. Banaszak, Genesis Engineering & Development, dated 11/13/2014

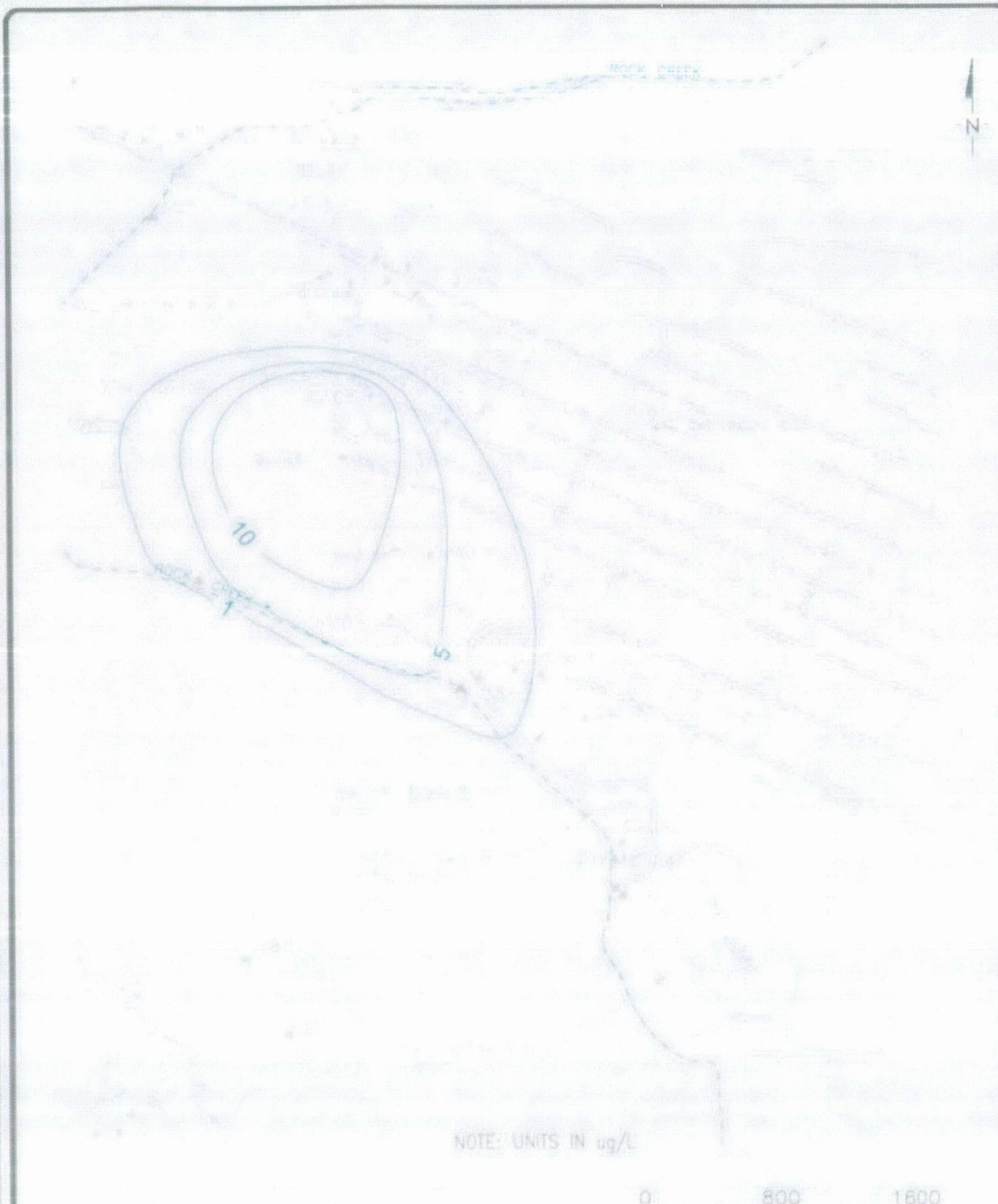

Figure 5-16. Model simulated TCE concentrations for Year 2019 in model layer 2 (top of the upper dolomite) with 6.9 year degradation half life.

GeoTrans, Inc.

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Figure 5-17. Model simulated TCE concentrations for Year 2019 in model layer 6 (top of the lower dolomite) with 6.9 year degradation half life.

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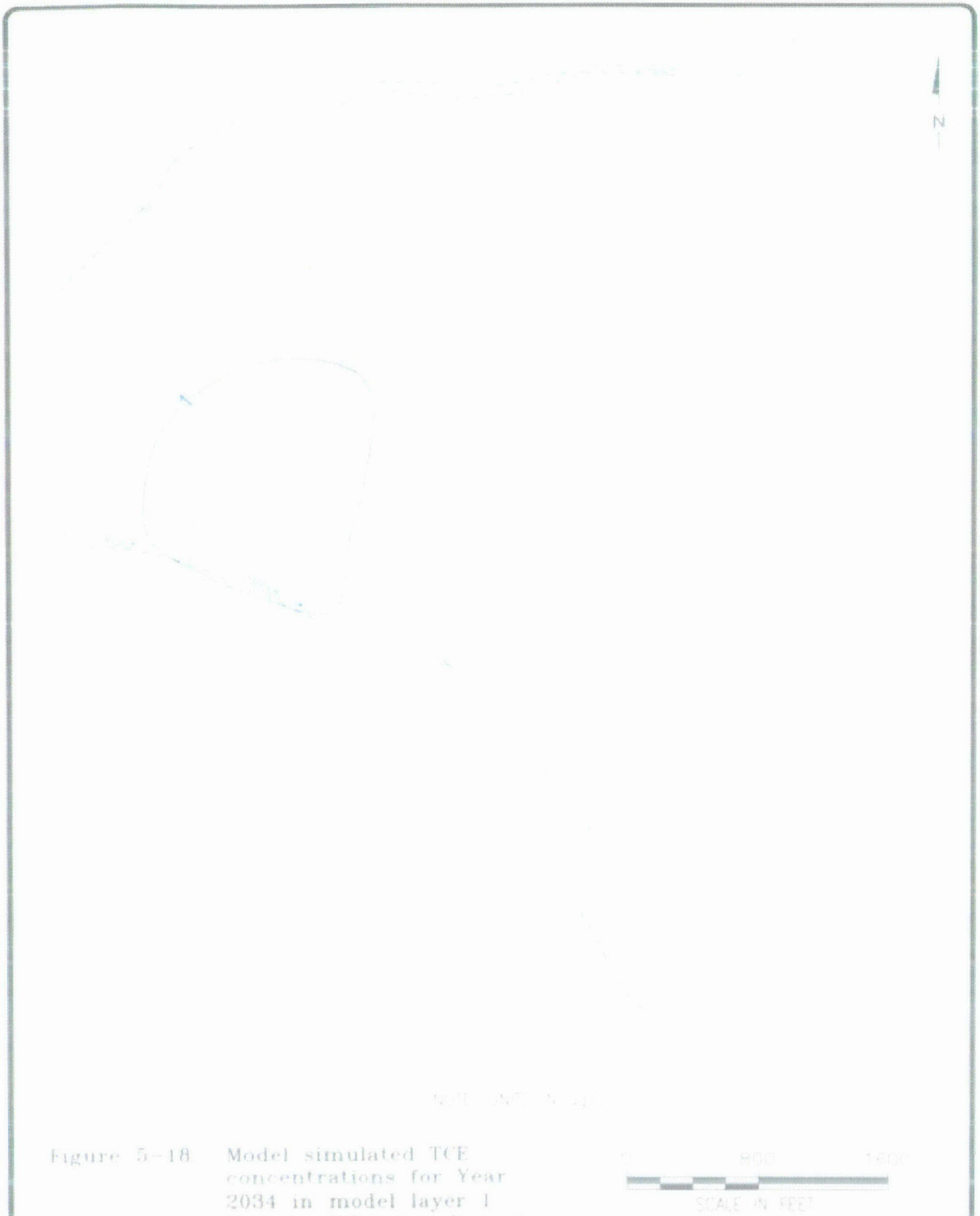

Figure 5-18 Model simulated TCE concentrations for Year 2034 in model layer 1 (unconsolidated sediments and upper dolomite) with 6.9 year degradation half life.

GeoTrans, Inc.
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Figure 5-19. Model simulated TCE concentrations for Year 2034 in model layer 2 (top of the upper dolomite) with 6.9 year degradation half life.

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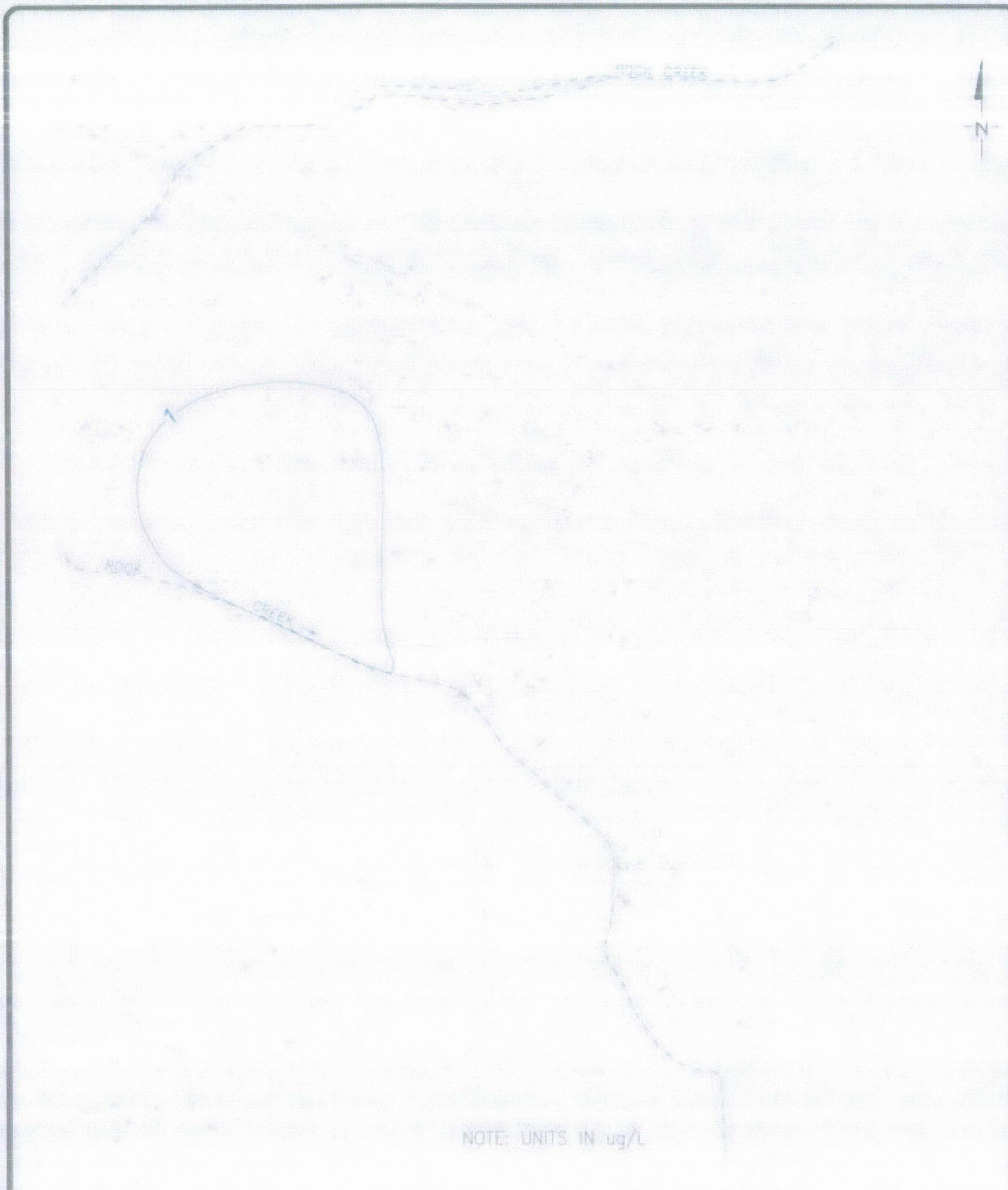

0 800 1600
SCALE IN FEET

Figure 5–20. Model simulated TCE concentrations for Year 2034 in model layer 6 (top of the lower dolomite) with 6.9 year degradation half life.

GeoTrans, Inc.
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P225041A.DWG

Table 4-2. Model calibrated hydraulic conductivity values compared to field values.

Zone	Description	Model Kx, Ky (ft/day)	Number of Field Values	Field Data Minimum (ft/day)	Field Data Maximum (ft/day)	Field Median (ft/day)
1	Lowland Deposits/ Upper Dolomite	7	4	0.11	6.7	2.8
2	Upland Deposits	2	0			
3	Upper Dolomite	14	6	0.09	12.8	1.9
4	Lower Dolomite	0.085	1	0.01	0.01	0.01

Exhibit 6

Table of Historical Groundwater Quality Data
from Hard Hat's 2007 and 2008 Annual Groundwater Modeling Report
(dated May 27, 2010)

APPENDIX B-1

HISTORIC GROUNDWATER QUALITY DATA
GE MORRISON FACILITY
MORRISON, ILLINOIS

Compound		TCE	1,1,1 TCA	1,1 DCA	1,1 DCE	1,2 DCE Total	PCE
IEPA CLASS I		0.005	0.2	0.7	0.007	0.07	0.005
Well Number	Date Sampled	Results (mg/L)					
MW-1LD	06/28/87	NS	NS	NS	NS	NS	NS
MW-1LD	03/06/89	0.9	2	0.093	0.042	<0.005	<0.005
MW-1LD	04/21/89	0.32	0.46	0.024	0.014	<0.005	<0.005
MW-1LD	09/18/91	0.66	0.98	0.051	<0.005	<0.005	0.04
MW-1LD	12/10/91	0.52	1	0.065	0.062	<0.005	<0.005
MW-1LD	03/06/92	5.49	1.5	0.009	0.079	<0.005	<0.005
MW-1LD	06/01/92	0.33	1.3	0.005	<0.005	<0.005	<0.005
MW-1LD	09/09/92	0.36	1.2	0.007	0.095	<0.005	<0.005
MW-1LD	12/04/92	0.38	1	0.009	0.11	<0.005	<0.005
MW-1LD	03/16/93	0.34	1.1	0.011	<0.005	<0.005	<0.005
MW-1LD	06/24/93	0.078	0.21	0.004	<0.001	0.003	0.002
MW-1LD	09/15/93	0.11	0.21	0.004	<0.001	0.003	0.003
MW-1LD	12/16/93	0.048	0.2	0.002	0.22	0.002	0.001
MW-1LD	03/16/94	0.039	0.13	0.002	0.014	<0.01	<0.001
MW-1LD	06/15/94	0.13	0.21	<0.01	<0.01	<0.01	<0.01
MW-1LD	09/22/94	0.1	0.22	<0.01	0.025	<0.01	<0.01
MW-1LD	11/29/94	0.1	0.2	0.002	0.026	0.002	0.002
MW-1LD	03/27/95	0.11	0.48	0.0047	0.040	0.0011	<0.001
MW-1LD (DUP)	03/27/95	0.09	0.31	<0.002	0.036	<0.002	<0.002
MW-1LD	06/15/95	0.061	0.13	0.0016	0.019	0.0013	0.0019
MW-1LD	09/13/95	0.066	0.11	0.002	0.013	0.0014	0.0028
MW-1LD	12/07/95	0.068	0.17	0.002	0.02	0.001	0.0014
MW-1LD	06/14/96	0.063	0.14	0.002	0.017	<0.001	<0.001
MW-1LD	09/19/96	0.037	0.09	<0.001	0.012	0.0012	0.001
MW-1LD	12/11/96	0.035	0.074	<0.001	0.011	<0.001	<0.001
MW-1LD (DUP)	12/11/96	0.038	0.082	<0.001	0.013	<0.001	<0.001
MW-1LD (TRIP)	12/11/96	0.039	0.084	<0.001	0.012	<0.001	<0.001
MW-1LD	03/10/97	NOT SAMPLED DUE TO AN OBSTRUCTION IN THE WELL CASING					
MW-1LD	09/23/97	0.04	0.061	0.0022	0.01	0.001	0.0016
MW-1LD	04/07/98	0.071	0.12	0.0022	0.03	<0.001	0.0016
MW-1LD	11/13/98	0.046	0.094	0.0025	0.017	<0.001	<0.001
MW-1LD	02/04/99	0.071	0.11	0.0022	0.026	0.001	0.0011
MW-1LD	08/19/99	0.045	0.052	0.002	0.0084	0.0011	0.0014
MW-1LD	06/13/00	0.078	0.14	0.0019	0.031	<0.001	0.001
MW-1LD (DUP)	06/13/00	0.077	0.18	0.0015	0.039	<0.001	0.0014
MW-1LD	08/20/00	0.051	0.075	0.0016	0.022	<0.001	0.0017
MW-1LD	08/20/01	0.048	0.06	0.0016	0.018	<0.001	<0.001
MW-1LD	11/08/01	0.040	0.082	0.0016	0.019	0.0011	<0.001
MW-1LD-PB	06/27/02	0.036	0.072	0.0013	0.039	<0.001	<0.001
MW-1LD-PB	06/11/03	0.030	0.027	0.0026	0.016	<0.001	<0.001
MW-1LD-PB	10/18/04	0.020	0.012	0.0029	0.012	<0.001	<0.001
MW-1LD-PB	11/07/05	0.020	0.006	0.0036	0.01	<0.001	<0.001
MW-1LD-PB	11/07/06	0.014	<0.001	<0.001	0.0098	<0.001	<0.001
MW-1LD-PB	10/30/07	0.011	0.0024	0.0022	0.0072	<0.001	<0.001
MW-1LD-PB	01/05/09	0.011	0.0023	0.0024	0.0055	<0.001	<0.001

APPENDIX B-1

HISTORIC GROUNWATER QUALITY DATA
GE MORRISON FACILITY
MORRISON, ILLINOIS

Compound		TCE	1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCE Total	PCE
IEPA CLASS I		0.005	0.2	0.7	0.007	0.07	0.005
Well Number	Date Sampled	Results (mg/L)					
MW-4UD	06/26/87	NS	NS	NS	NS	NS	NS
MW-4UD	03/06/89	NS	NS	NS	NS	NS	NS
MW-4UD	04/21/89	NS	NS	NS	NS	NS	NS
MW-4UD	09/18/91	0.71	0.02	0.008	0.005	0.038	0.02
MW-4UD	12/10/91	0.41	<0.005	<0.005	<0.005	0.085	<0.005
MW-4UD	03/06/92	0.18	<0.005	<0.005	<0.005	0.034	<0.005
MW-4UD	06/01/92	0.46	<0.005	<0.005	<0.005	0.052	<0.005
MW-4UD	09/09/92	0.13	<0.005	<0.005	<0.005	0.026	<0.005
MW-4UD	12/04/92	0.35	<0.005	<0.005	0.005	0.083	<0.005
MW-4UD	03/16/93	0.42	<0.005	<0.005	<0.005	0.11	<0.005
MW-4UD	06/24/93	0.12	<0.001	<0.001	<0.001	0.029	<0.001
MW-4UD	09/15/93	0.3	0.008	<0.001	0.001	0.042	0.001
MW-4UD	12/16/93	0.039	<0.001	<0.001	<0.001	0.005	<0.001
MW-4UD	03/16/94	0.7	<0.001	<0.001	0.002	0.084	0.003
MW-4UD	06/15/94	0.64	<0.010	<0.010	<0.010	0.042	<0.01
MW-4UD	09/22/94	0.79	<0.040	<0.040	<0.040	<0.040	<0.04
MW-4UD	11/29/94	0.33	0.002	<0.001	<0.001	0.053	0.002
MW-4UD	03/27/95	0.42	0.0018	<0.001	<0.001	0.052	0.0028
MW-4UD	06/15/95	<0.001	<0.001	<0.001	<0.001	<0.001	0.019
MW-4UD (DUP)	06/15/95	0.66	0.0012	<0.001	<0.001	0.0627	0.0018
MW-4UD	09/13/95	0.290	<0.001	<0.001	<0.001	0.021	0.0015
MW-4UD	12/07/95	0.620	0.006	<0.001	<0.001	0.015	0.003
MW-4UD	06/14/96	0.19	0.002	<0.001	<0.001	0.019	<0.001
MW-4UD (DUP)	06/14/96	0.18	0.002	<0.001	<0.001	0.018	<0.001
MW-4UD (DUP)	09/19/96	0.470	0.009	<0.001	<0.001	0.039	0.0024
MW-4UD	09/19/96	0.47	0.009	<0.001	0.003	0.038	0.0023
MW-4UD	12/11/96	0.2	0.004	<0.002	<0.002	0.015	<0.002
MW-4UD (DUP)	12/11/96	0.2	0.004	<0.002	<0.002	0.016	<0.002
MW-4UD	03/10/97	0.086	<0.001	<0.001	<0.001	0.007	<0.001
MW-4UD (DUP)	03/10/97	0.089	<0.001	<0.001	<0.001	0.007	<0.001
MW-4UD	09/23/97	0.5	0.016	<0.001	0.0064	0.047	0.0027
MW-4UD	04/07/98	0.45	<0.001	<0.001	0.001	0.037	0.0036
MW-4UD	11/12/98	0.50	0.023	<0.005	<0.005	0.063	<0.005
MW-4UD	02/04/99	0.63	0.02	<0.005	0.011	0.056	<0.005
MW-4UD	08/18/99	0.5	0.022	<0.005	0.0083	0.05	<0.005
MW-4UD	06/12/00	0.40	0.023	<0.005	0.014	0.052	<0.005
MW-4UD	08/22/00	0.43	0.021	<0.005	0.0079	0.018	<0.005
MW-4UD	06/20/01	0.32	0.021	<0.005	0.011	0.043	<0.005
MW-4UD	11/15/01	0.21	0.021	<0.005	0.0093	0.034	0.0028
MW-4UD PB	11/15/01	0.096	0.006	<0.001	0.0034	0.0172	0.0028
MW-4UD	06/27/02	0.14	0.02	<0.001	0.012	0.043	0.0029
MW-4UD-PB	06/27/02	0.07	0.0068	<0.001	0.0063	0.066	<0.001
MW-4UD-PB	06/11/03	0.02	0.0014	<0.001	0.0011	0.0093	<0.001
MW-4UD-PB	10/18/04	0.029	0.003	<0.001	0.0027	0.022	<0.001
MW-4UD-PB	11/07/05	0.021	0.0022	<0.001	0.0023	0.0192	<0.001
MW-4UD-PB	11/07/06	0.016	0.0020	<0.001	0.0023	0.0195	<0.001
MW-4UD-PB	10/30/07	0.014	0.0012	<0.001	0.0018	0.0091	<0.001
MW-4UD-PB	01/05/09	0.018	0.0015	<0.001	0.0021	0.012	<0.001

APPENDIX B-1

HISTORIC GROUNDWATER QUALITY DATA
GE MORRISON FACILITY
MORRISON, ILLINOIS

Compound		TCE	1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCE Total	PCE
IEPA CLASS I		0.005	0.2	0.7	0.007	0.07	0.005
Well Number	Date Sampled	Results (mg/L)					
G-105D	08/26/87	14	14	0.012	1.8	0.057	0.009
G-105D	03/06/89	1.8	0.92	0.66	0.6	0.23	<0.005
G-105D	04/21/89	NS	NS	NS	NS	NS	NS
G-105D	09/18/91	18	38	0.022	7	0.044	0.054
G-105D	12/10/91	16	24	0.069	6.1	0.093	0.066
G-105D	03/06/92	21	24	0.061	8.3	0.057	0.066
G-105D	06/01/92	20	41	0.061	9.6	0.047	0.11
G-105D	09/09/92	12	24	0.1	0.098	<0.005	0.084
G-105D	12/04/92	14	31	0.083	9.1	0.086	0.077
G-105D	03/16/93	14	28	0.074	11	0.1	<0.005
G-105D	06/24/93	8.8	26	0.064	11	0.06	0.12
G-105D	09/15/93	8.4	37	0.071	11	0.11	0.11
G-105D	12/16/93	11	29	0.097	8.2	0.14	0.11
G-105D	03/16/94	10	21	0.07	11	0.12	0.13
G-105D	06/15/94	4.6	18	0.065	8	0.1	0.067
G-105D	09/22/94	6	20	0.084	8	0.14	0.079
G-105D	11/29/94	5.6	18	0.096	9	0.24	0.13
G-105D	03/27/95	8.4	14	0.13	7	0.16	0.11
G-105D	06/15/95	5	14	<0.5	6.6	<0.5	<0.5
G-105D	09/13/95	4	12	<0.1	4.6	<0.1	<0.1
G-105D	12/07/95	6.4	14	<0.1	6.6	<0.1	0.12
G-105D	06/14/96	5.7	16	<0.05	5.4	<0.05	0.092
G-105D	09/19/96	3.8	1.9	0.087	5.8	0.087	0.076
G-105D	12/11/96	6.7	14	<0.1	7.6	<0.1	0.1
G-105D	03/10/97	7	14	0.098	6.3	0.11	0.15
G-105D	09/22/97	4.9	15	0.13	7.6	0.093	0.13
G-105D (DUP)	09/22/97	4.7	14	0.14	6.9	0.099	0.14
G-105D	04/07/98	6.6	10	0.083	6.3	0.084	0.16
G-105D (DUP)	04/07/98	6.1	9.8	0.08	5.8	0.082	0.16
G-105D	11/13/98	6.4	13	<0.1	5.8	<0.1	0.2
G-105D (DUP)	11/13/98	6.3	13	<0.1	5.4	<0.1	0.18
G-105D	02/04/99	6.4	13	0.11	8.3	<0.1	0.22
G-105D (DUP)	02/04/99	6.3	13	0.1	8.3	<0.1	0.24
G-105D (DUP)	08/18/99	4.3	14	0.1	7.4	<0.1	0.14
G-105D	08/18/99	4.3	14	0.11	8.4	<0.1	0.12
G-105D	06/12/00	6.4	7.9	0.12	6.7	<0.1	0.19
G-105D	08/22/00	3.6	18	0.11	6.4	0.014	0.1
G-105D	06/20/01	3.6	8.3	0.1	5.6	<0.1	0.12
G-105D	11/07/01	3.5	7	0.11	4.4	<0.1	0.11
G-105D	06/27/02	1.6	6.3	<0.050	4.7	<0.1	0.053
G-105D-PB	06/27/02	0.28	0.37	0.14	0.92	0.069	<0.01
G-105D	11/25/02	2.6	5.8	0.098	4.1	<0.05	<0.01
G-105D (DUP)	11/25/02	2.5	5.6	0.098	4	0.021	<0.01
G-105D-PB	11/25/02	0.12	0.041	0.22	0.96	0.023	<0.01
G-105D-PB (DUP)	11/25/02	0.12	0.042	0.23	1	0.061	<0.01
G-105D-PB	06/11/03	0.26	0.11	0.18	0.7	0.058	<0.005
G-105D	06/11/03	4.6	6.4	0.098	4.6	<0.05	0.13
G-105D-PB	10/18/04	0.11	0.026	0.1	0.37	<0.05	0.13
G-105D-PB	11/07/05	0.026	0.01	0.11	0.42	0.03	0.0027
G-105D-PB	11/07/06	0.03	0.0021	0.064	0.13	0.017	<0.001
G-105D-PB	10/30/07	0.026	0.002	0.018	0.097	0.014	<0.001
G-105D-PB	01/05/09	0.013	0.0011	0.023	0.032	0.0075	0.0021
G-105D-PB (DUP)	01/05/09	0.012	0.001	0.022	0.030	0.0071	0.002

Notes:
1.) IEPA = Illinois Environmental Protection Agency
2.) IEPA Class I groundwater standards from Illinois Administrative Code, Title 35, Part 742, Tiered Approach to Corrective Action Objectives (TACO), amended March 2007
3.) BDL denotes below detection limit, detection limits not provided on the analytical data sheets from the Phase 1 Investigation
4.) NS = Not sampled
5.) (D) indicates duplicate sample
6.) mg/L = milligrams per liter
7.) TCE = trichloroethene, 1,1,1-TCA = 1,1,1-trichloroethane, 1,1-DCA = 1,1-dichloroethane, 1,1-DCE = 1,1-dichloroethene, 1,2-DCE (total) = cis & trans 1,2-dichloroethene, PCE = tetrachloroethene, 1,1,2,2-PCE = 1,1,2,2-tetrachloroethane
8.) **Bold** indicates compound was detected
9.) **Bold and highlighted** indicates value at or above Class I groundwater standard
10.) < = indicates the analyte not detected at the stated reporting limit
11.) PB = passive diffusion bag sample
12.) J = indicates an estimated value
13.) D = Compound identified in an analysis at a secondary dilution factor
14.) TCE and 1,1,1-TCA samples recovered from MW-11D between March 1989 and November 1994 diluted by laboratory to obtain the reported result
15.) TCE samples recovered from MW-4JD between September 1991 and November 1994 diluted by laboratory to obtain the reported result
16.) TCE and 1,1,1-TCA samples recovered from G-105D diluted by the laboratory to obtain the reported result. Analysis for the remaining analytes was performed on diluted samples beginning in June 1993

APPENDIX B-2

HISTORIC GROUNWATER QUALITY DATA
GE MORRISON FACILITY
MORRISON, ILLINOIS

Compound		TCE	1,1,1-TCA	1,1-DCA	1,1-DCE Total	1,2-DCE Total	PCE	1,1,2,2-PCE
IEPA CLASS I		0.005	0.2	0.7	0.007	0.07	0.005	-
Well Number	Date Sampled	Results (mg/L)						
MW2-UD	3/4/1989	0.018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW2-UD	3/27/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	< 0.001
MW2-UD	6/15/1995	0.031	0.0013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW2-UD	9/24/1997	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0065	< 0.001
MW2-UD	4/6/1998	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW2-UD	8/17/1999	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.017	< 0.001
MW2-UD (DUP)	8/17/1999	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.026	< 0.001
MW2-UD	6/22/2000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.028	< 0.001
MW2-UD	6/20/2001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.047	< 0.001
MW2-UD	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.044	< 0.001
MW2-UD (DUP)	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.044	< 0.001
MW2-UD-PB	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.023	< 0.001
MW2-UD-PB (DUP)	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.032	< 0.001
MW2-UD-PB	6/11/2003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.010	< 0.001
MW2-UD-PB (DUP)	6/11/2003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.010	< 0.001
MW2-UD-PB	10/18/2004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.032	< 0.001
MW2-UD-PB (DUP)	10/18/2004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.034	< 0.001
MW2-UD-PB	11/7/2005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.040	< 0.001
MW2-UD-PB (DUP)	11/7/2005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.038	< 0.001
MW2-UD-PB	11/7/2006	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.020	< 0.001
MW2-UD-PB (DUP)	11/7/2006	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.038	< 0.001
MW2-UD-PB	10/30/2007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.030	< 0.001
MW2-UD-PB (DUP)	10/30/2007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.032	< 0.001
MW2-UD-PB	1/5/2009	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.032	< 0.001
MW3-UD	3/2/1989	0.022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW3-UD	3/27/1995	0.038	0.0012	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW3-UD	6/15/1995	0.029	0.0013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW3-UD	9/24/1997	0.011	0.0024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW3-UD	4/6/1998	0.012	0.0012	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW3-UD	8/18/1999	0.0045	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW3-UD	6/21/2000	0.0048	0.003	< 0.001	< 0.001	< 0.001	0.0041	< 0.001
MW3-UD	6/20/2001	0.013	0.008	< 0.001	0.0024	< 0.001	0.021	< 0.001
MW3-UD-PB	6/27/2002	0.0036	0.003	< 0.001	0.0014	< 0.001	0.0035	< 1.001
MW3-UD-PB	6/11/2003	< 0.001	< 0.001	< 0.001	< 0.001	0.0012	< 0.001	< 0.001
MW3-UD-PB	10/18/2004	< 0.001	0.0015	< 0.001	< 0.001	0.0012	0.0079	< 0.001
MW3-UD-PB	11/7/2005	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001
MW3-UD-PB	11/7/2006	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW3-UD-PB	10/30/2007	NOT SAMPLED DUE TO DAMAGED WELL CASING						
MW3-UD-PB	1/5/2009	NOT SAMPLED DUE TO DAMAGED WELL CASING						
MW4-LS	3/4/1989	0.29 D	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW4-LS	3/27/1995	0.34	0.011	< 0.0025	< 0.0025	< 0.0025	< 0.005	< 0.0025
MW4-LS	6/15/1995	0.08	0.0027	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW4-LS	9/24/1997	0.36	0.014	< 0.001	0.0031	0.0012	0.0028	< 0.001
MW4-LS	4/7/1998	0.29	0.014	< 0.001	0.0032	0.0011	0.0037	< 0.001
MW4-LS	8/18/1999	0.21	0.016	< 0.001	< 0.001	< 0.001	0.0052	< 0.001
MW4-LS	8/22/2000	0.27	0.010	< 0.001	0.0025	< 0.001	0.0036	< 0.001
MW4-LS	6/20/2001	0.28	0.011	< 0.001	0.0029	< 0.001	0.0057	< 0.001
MW4-LS	11/15/2001	0.26	0.016	< 0.002	< 0.002	< 0.002	0.0061	< 0.002
MW4-LS-PB	6/27/2002	0.19	0.0086	< 0.002	0.0035	< 0.002	0.0028	< 0.002
MW4-LS-PB	6/11/2003	0.18	0.0082	< 0.001	0.0032	< 0.001	0.0026	< 0.001
MW4-LS-PB	10/18/2004	0.23	0.0170	< 0.001	0.0041	< 0.002	0.0086	< 0.001
MW4-LS-PB	11/7/2005	0.24	0.008	< 0.001	0.003	< 0.002	0.011	< 0.001
MW4-LS-PB	11/7/2006	0.20	0.0083	< 0.001	0.0038	< 0.001	0.012	< 0.001
MW4-LS-PB	10/30/2007	0.26	0.0086	< 0.002	0.0035	< 0.002	0.010	< 0.002
MW4-LS-PB	1/5/2009	0.29	0.007	< 0.001	0.0037	0.0012	0.021	< 0.001

APPENDIX B-2

HISTORIC GROUNWATER QUALITY DATA
GE MORRISON FACILITY
MORRISON, ILLINOIS

Compound		TCE	1,1,1-TCA	1,1-DCA	1,1-DCE Total	1,2-DCE Total	PCE	1,1,2,2-PCE
IEPA CLASS I		0.005	0.2	0.7	0.007	0.07	0.005	-
Well Number	Date Sampled	Results (mg/L)						
MW5-LS	3/5/1989	0.014	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
MW5-LS	3/27/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS	6/15/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS	9/23/1997	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS	4/6/1998	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS	8/18/1999	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS	8/21/2000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS	6/20/2001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	6/11/2003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	10/18/2004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	11/7/2005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	11/7/2006	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	10/30/2007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW5-LS-PB	1/5/2009	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	6/27/1987	0.052	BDL	BDL	BDL	BDL	BDL	BDL
G101D	3/3/1989	0.004 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
G101D	3/27/1995	0.0094	0.0034	< 0.001	0.0016	< 0.001	< 0.001	< 0.001
G101D	6/14/1995	0.008	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	9/24/1997	0.0063	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	4/7/1998	0.0087	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	8/18/1999	0.0074	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	8/21/2000	0.0069	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D (DUP)	6/20/2001	0.0063	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	6/20/2001	0.0062	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D	11/12/2001	0.0061	0.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D-PB	6/27/2002	0.0037	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D-PB	6/11/2003	0.0130	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D-PB	10/18/2004	0.0140	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D-PB	11/7/2005	0.014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D-PB	11/7/2006	0.023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G101D-PB	10/30/2007	0.0042	< 0.001	< 0.001	< 0.001	0.0049	< 0.001	< 0.001
G101D-PB	1/5/2009	< 0.001	< 0.001	< 0.001	< 0.001	0.006	< 0.001	< 0.001
G105S	6/30/1987	BDL	BDL	BDL	BDL	BDL	BDL	BDL
G105S	3/22/1989	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
G105S	3/27/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G105S	6/14/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G105S	9/23/1997	< 0.001	0.0029	0.0013	< 0.001	< 0.001	< 0.001	< 0.001
G105S	4/7/1998	< 0.001	0.0091	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G105S	8/19/1999	< 0.001	0.0074	< 0.001	0.002	< 0.001	< 0.001	< 0.001
G105S	8/22/2000	< 0.001	0.0078	0.0025	< 0.001	< 0.001	< 0.001	< 0.001
G105S	6/20/2001	NOT SAMPLED DUE TO DAMAGED WELL CASING						
G105S	11/8/2001	< 0.001	0.0087	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	6/27/2002	< 0.001	0.0051	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	6/11/2003	< 0.001	0.0091	0.0019	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	10/18/2004	< 0.001	< 0.001	0.0037	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	11/7/2005	< 0.001	< 0.001	0.0022	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	11/7/2006	< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	10/30/2007	< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001	< 0.001
G105S-PB	1/5/2009	0.0021	0.015	0.0018	< 0.001	< 0.001	< 0.001	< 0.001

APPENDIX B-2

HISTORIC GROUNWATER QUALITY DATA
GE MORRISON FACILITY
MORRISON, ILLINOIS

Compound		TCE	1,1,1-TCA	1,1-DCA	1,1-DCE Total	1,2-DCE Total	PCE	1,1,2,2-PCE
IEPA CLASS I		0.005	0.2	0.7	0.007	0.07	0.005	-
Well Number	Date Sampled	Results (mg/L)						
G104S	6/27/1987	BDL	BDL	BDL	BDL	BDL	BDL	BDL
G104S	3/27/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S	6/14/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S	9/23/1997	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S	4/6/1998	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S	8/18/1999	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S	8/21/2000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S	6/20/2001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	6/11/2003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	10/18/2004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	11/7/2005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	11/7/2006	**0.0014**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	10/30/2007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104S-PB	1/5/2009	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	6/27/1987	BDL	BDL	BDL	BDL	BDL	BDL	BDL
G104D	3/27/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	6/14/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	9/23/1997	**0.0017**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	4/6/1998	**0.0023**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	8/18/1999	**0.001**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	8/21/2000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D	6/20/2001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D-PB	6/27/2002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D-PB	6/11/2003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D-PB	10/18/2004	< 0.001	< 0.001	< 0.001	< 0.001	**0.0011**	< 0.001	< 0.001
G104D-PB	11/7/2005	**0.0048**	< 0.001	< 0.001	< 0.001	**0.0011**	< 0.001	< 0.001
G104D-PB	11/7/2006	**0.0036**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D-PB	10/30/2007	**0.002**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
G104D-PB	1/5/2009	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes:
1.) IEPA = Illinois Environmental Protection Agency
2.) IEPA Class I groundwater standards from Illinois Administrative Code, Title 35, Part 742, Tiered Approach to Corrective Action Objectives (TACO), amended March 2007.
3.) BDL denotes below detection limit; detection limits not provided on the analytical data sheets from the Phase 1 Investigation
4.) (D) indicates duplicate sample.
5.) mg/L = milligrams per liter
6.) TCE = trichloroethene; 1,1,1-TCA = 1,1,1-trichloroethane; 1,1-DCA = 1,1-dichloroethane; 1,1-DCE = 1,1=dichloroethene; 1,2-DCE (total) = cis & trans-1,2-dichloroethene; PCE = tetrachloroethene; 1,1,2,2-PCE = 1,1,2,2-tetrachloroethene
7.) **Bold** indicates compound was detected.
8.) **Bold and highlighted** indicates value at or above Class I groundwater standard.
9.) < = indicates the analyte not detected at the stated reporting limit.
11.) PB = passive diffusion bag sample
12.) J = indicates an estimated value.
13.) D = Compound identified in an analysis at a secondary dilution factor.

<u>Exhibit 7</u>

Selected Materials from
MWH's Focused Site Investigation (FSI) Report
(dated April 2013)

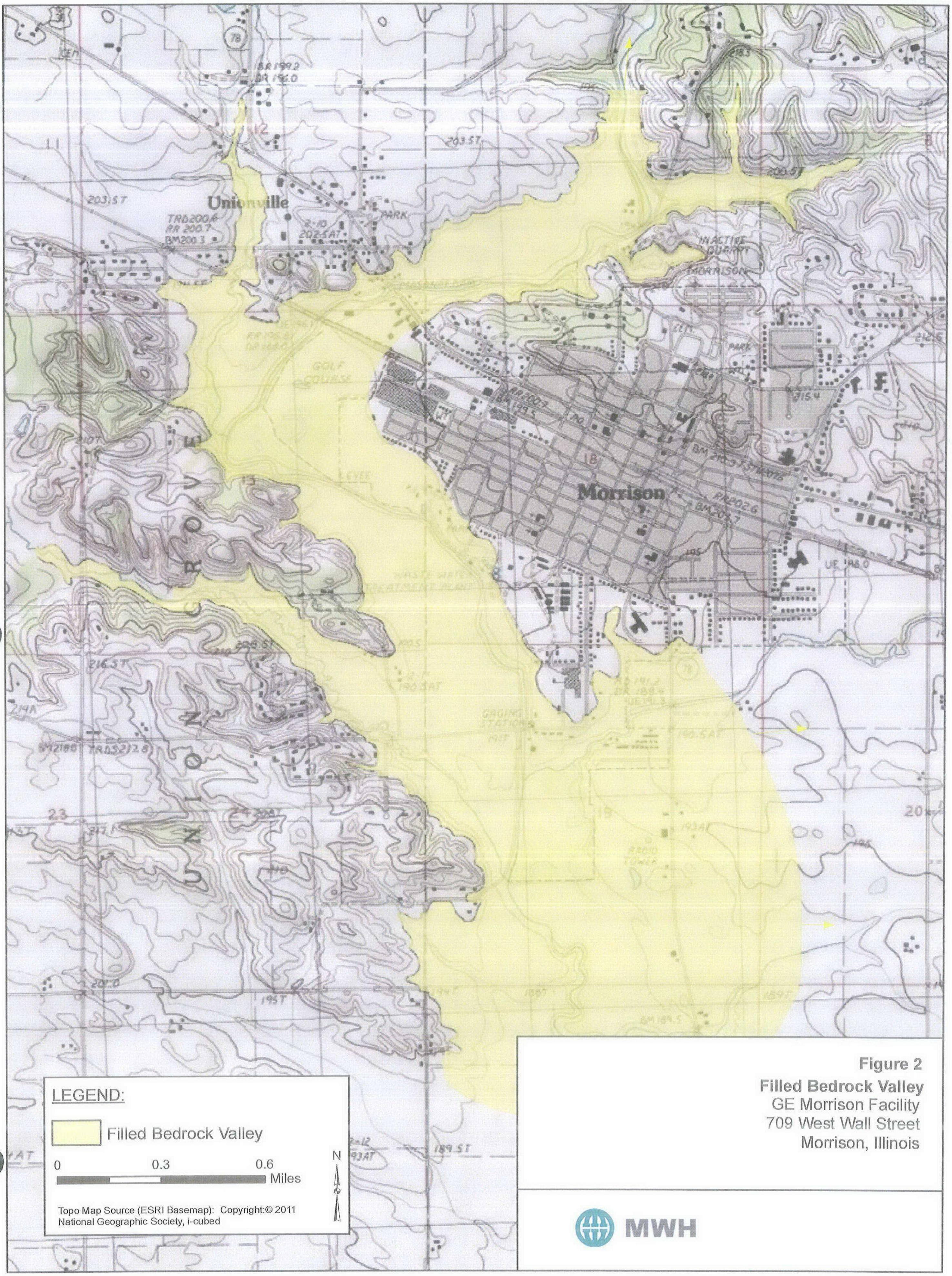

Unionville
Morrison
GOLF COURSE
LEVEE
WASTE WATER TREATMENT PLANT
GAGING STATION
RADIO TOWER
INACTIVE QUARRY
LEGEND:
Filled Bedrock Valley
0
0.3
0.6
Miles
N
Topo Map Source (ESRI Basemap): Copyright:© 2011 National Geographic Society, i-cubed
Figure 2
Filled Bedrock Valley
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH


Figure 3
Site Features Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
LEGEND:
GE Facility Boundary
Ethen Allen Property
Golf Course Boundary
Air Stripper
Groundwater Well
Golf Course Irrigation Well
City Well
Active Well
Sealed Well
FWS NWI Wetlands
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
0 200 400 800 Feet
Orthoimagery Source: Whiteside County, Illinois
FWS NWI Wetlands: U.S. Fish and Wildlife Service. 1977 to present. Wetlands and Deepwater Habitats of the Conterminous United States. National Wetlands Inventory Maps, Washington, D.C.
W Wall St
W Park St
W South St
W Morris St
S Heaton St
Fairway Dr
Oak
Building 17
Building 6
Building 14
Former CSA
Main Building
Ethen Allen
Wetland identified in 1989 Phase I
G105S
G105D
MW10
MW4-UD
MW1-LD
MW3-UD
MW2-UD
MW09
MW8-LS
MW4-LS
MW7-LS
MW5-LS
G101D
CW-1
CW-2
CW-3
G104D
G104S
North Well
South Well

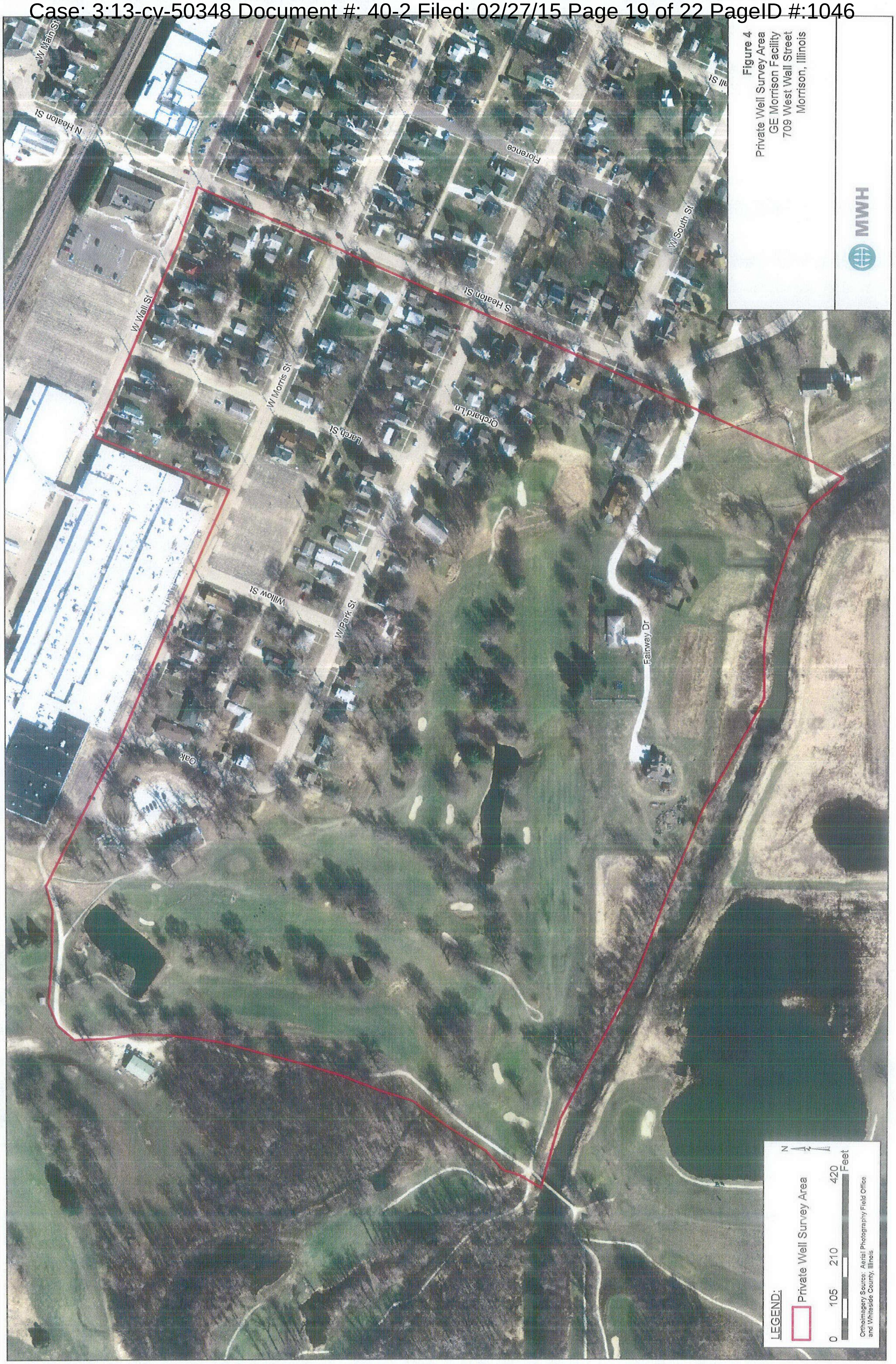
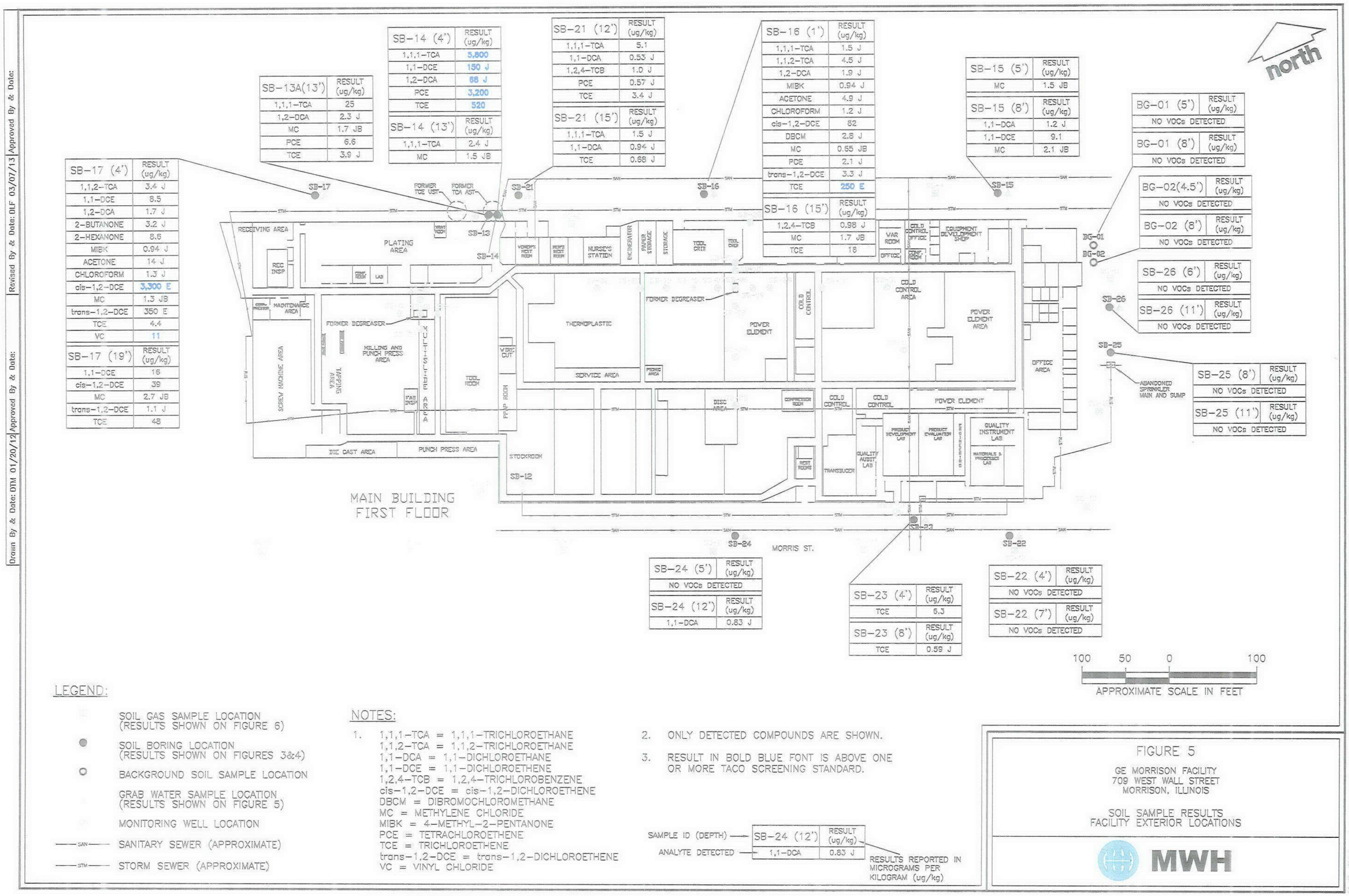
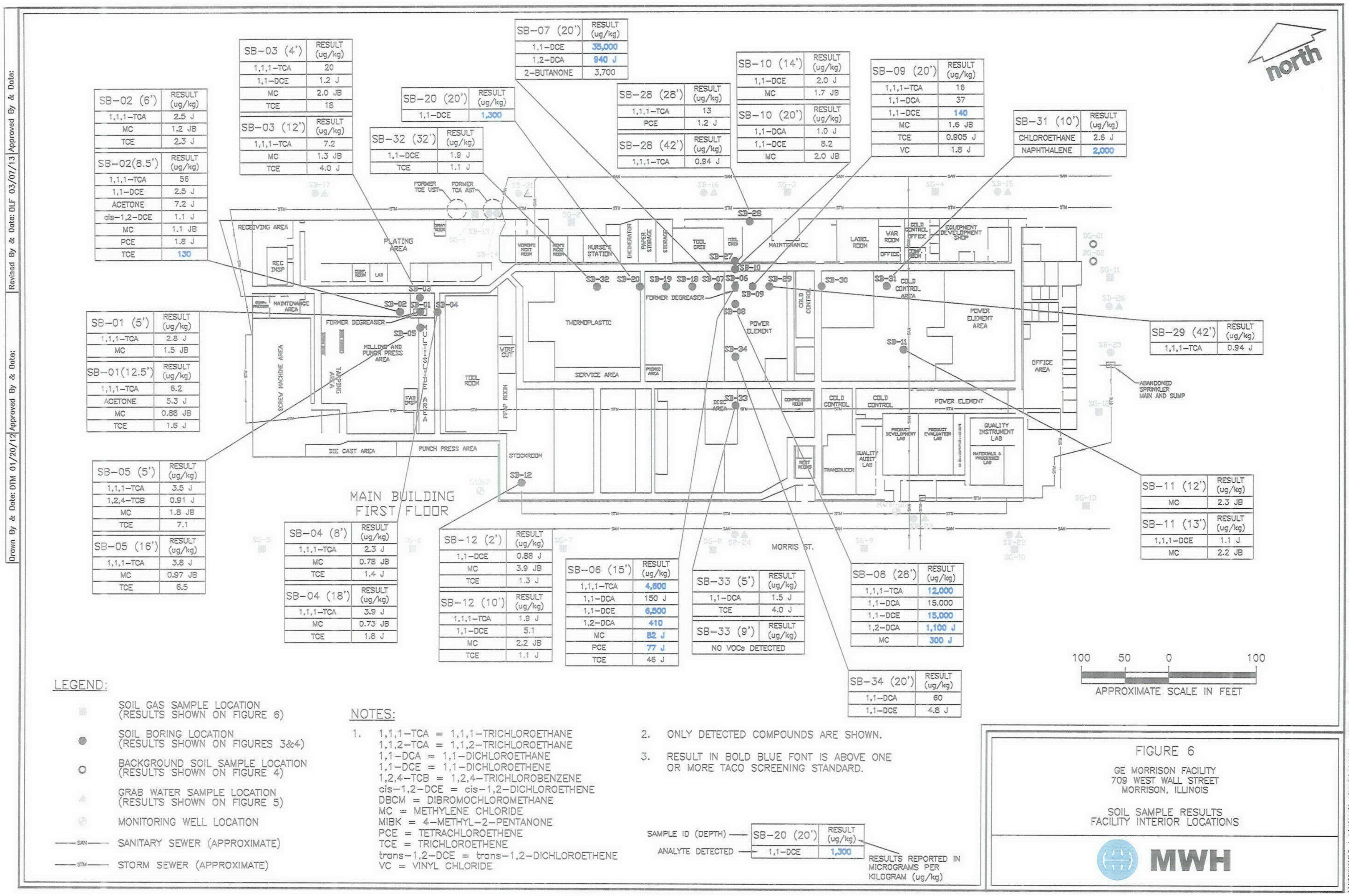
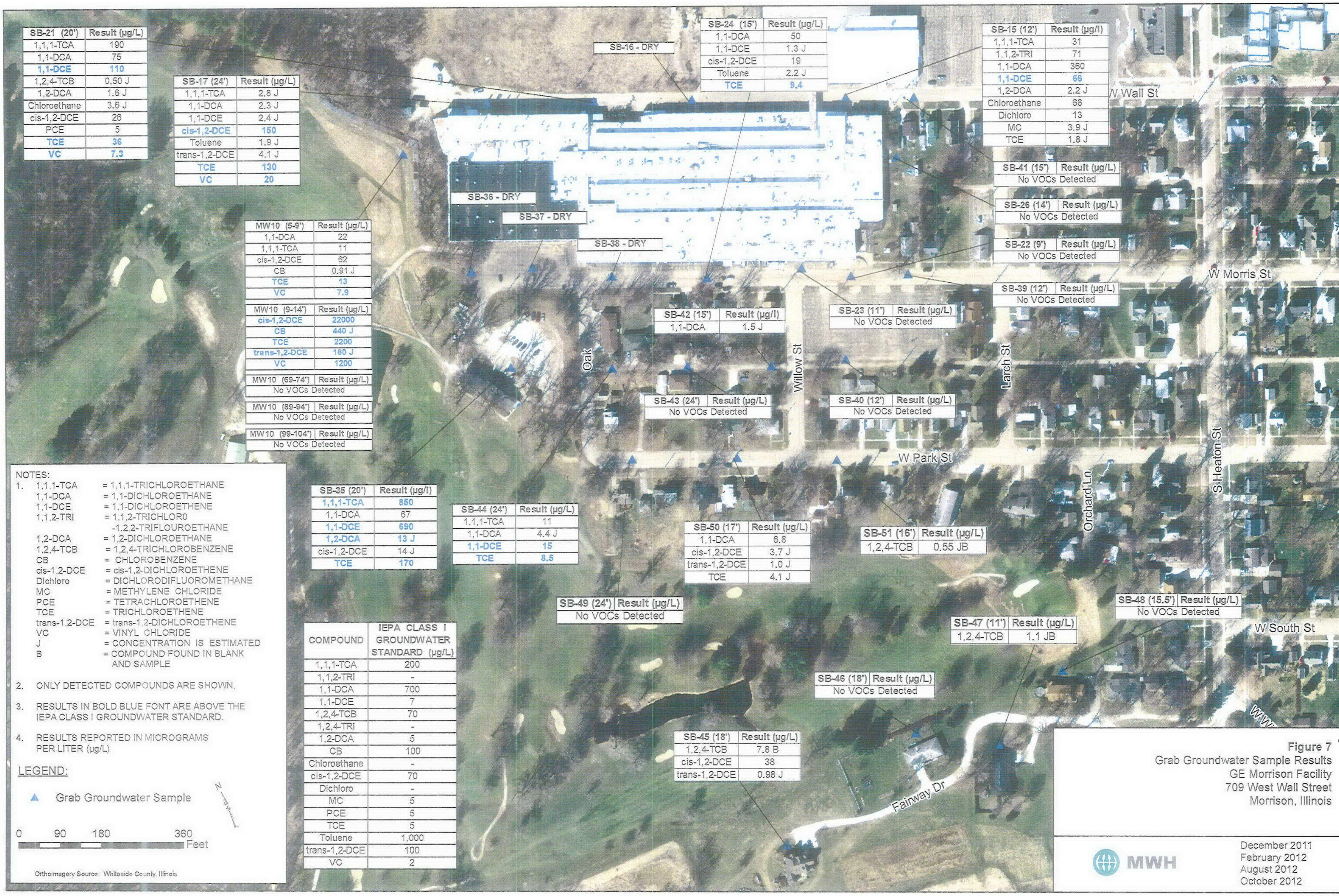


Figure 4
Private Well Survey Area
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
W Main St
N Heaton St
Florence
W South St
S Heaton St
W Wall St
W Morris St
Larch St
Orchard Ln
Willow St
W Park St
Fairway Dr
Oak
LEGEND:
Private Well Survey Area
0 105 210 420 Feet
N
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois


north
SB-17 (4') RESULT (ug/kg)
1,1,2-TCA 3.4 J
1,1-DCE 8.5
1,2-DCA 1.7 J
2-BUTANONE 3.2 J
2-HEXANONE 8.5
MIBK 0.94 J
ACETONE 14 J
CHLOROFORM 1.3 J
cis-1,2-DCE 3,300 E
MC 1.3 JB
trans-1,2-DCE 350 E
TCE 4.4
VC 11
SB-17 (19') RESULT (ug/kg)
1,1-DCE 16
cis-1,2-DCE 39
MC 2.7 JB
trans-1,2-DCE 1.1 J
TCE 48
SB-13A(13') RESULT (ug/kg)
1,1,1-TCA 25
1,2-DCA 2.3 J
MC 1.7 JB
PCE 6.6
TCE 3.9 J
SB-14 (4') RESULT (ug/kg)
1,1,1-TCA 5,800
1,1-DCE 150 J
1,2-DCA 68 J
PCE 3,200
TCE 520
SB-14 (13') RESULT (ug/kg)
1,1,1-TCA 2.4 J
MC 1.5 JB
SB-21 (12') RESULT (ug/kg)
1,1,1-TCA 5.1
1,1-DCA 0.53 J
1,2,4-TCB 1.0 J
PCE 0.57 J
TCE 3.4 J
SB-21 (15') RESULT (ug/kg)
1,1,1-TCA 1.5 J
1,1-DCA 0.94 J
TCE 0.68 J
SB-16 (1') RESULT (ug/kg)
1,1,1-TCA 1.5 J
1,1,2-TCA 4.5 J
1,2-DCA 1.9 J
MIBK 0.94 J
ACETONE 4.9 J
CHLOROFORM 1.2 J
cis-1,2-DCE 82
DBCM 2.8 J
MC 0.65 JB
PCE 2.1 J
trans-1,2-DCE 3.3 J
TCE 250 E
SB-16 (15') RESULT (ug/kg)
1,2,4-TCB 0.98 J
MC 1.7 JB
TCE 18
SB-15 (5') RESULT (ug/kg)
MC 1.5 JB
SB-15 (8') RESULT (ug/kg)
1,1-DCA 1.2 J
1,1-DCE 9.1
MC 2.1 JB
BG-01 (5') RESULT (ug/kg)
NO VOCs DETECTED
BG-01 (8') RESULT (ug/kg)
NO VOCs DETECTED
BG-02(4.5') RESULT (ug/kg)
NO VOCs DETECTED
BG-02 (8') RESULT (ug/kg)
NO VOCs DETECTED
SB-26 (6') RESULT (ug/kg)
NO VOCs DETECTED
SB-26 (11') RESULT (ug/kg)
NO VOCs DETECTED
SB-25 (8') RESULT (ug/kg)
NO VOCs DETECTED
SB-25 (11') RESULT (ug/kg)
NO VOCs DETECTED
SB-24 (5') RESULT (ug/kg)
NO VOCs DETECTED
SB-24 (12') RESULT (ug/kg)
1,1-DCA 0.83 J
SB-23 (4') RESULT (ug/kg)
TCE 5.3
SB-23 (8') RESULT (ug/kg)
TCE 0.59 J
SB-22 (4') RESULT (ug/kg)
NO VOCs DETECTED
SB-22 (7') RESULT (ug/kg)
NO VOCs DETECTED
SB-17
SB-13
SB-14
SB-21
SB-16
SB-15
BG-01
BG-02
SB-26
SB-25
SB-12
SB-24
SB-23
SB-22
FORMER TCE UST
FORMER TCA AST
RECEIVING AREA
PLATING AREA
REC INSP
LAB
MAINTENANCE AREA
FORMER DEGREASER
MILLING AND PUNCH PRESS AREA
TAPPING AREA
SCREW MACHINE AREA
TOOL ROOM
WIRE CUT
PREP ROOM
DIE CAST AREA
PUNCH PRESS AREA
STOCKROOM
NURSE'S STATION
INCINERATOR
POWER STORAGE
STORAGE
TOOL CRIB
TOOL SHOP
THERMOPLASTIC
SERVICE AREA
FORMER DEGREASER
POWER ELEMENT
COLD CONTROL
DISC AREA
COMPRESSOR ROOM
VAR ROOM
OFFICE
COLD CONTROL OFFICE
CONF. ROOM
EQUIPMENT DEVELOPMENT SHOP
COLD CONTROL AREA
POWER ELEMENT AREA
OFFICE AREA
POWER ELEMENT
PRODUCT DEVELOPMENT LAB
PRODUCT EVALUATION LAB
QUALITY INSTRUMENT LAB
MATERIALS & PROCESSES LAB
QUALITY AUDIT LAB
TRANSDUCER
REST ROOM
ABANDONED SPRINKLER MAIN AND SUMP
MAIN BUILDING FIRST FLOOR
MORRIS ST.
SAN
STM
100 50 0 100
APPROXIMATE SCALE IN FEET
LEGEND:
SOIL GAS SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 6)
SOIL BORING LOCATION (RESULTS SHOWN ON FIGURES 3&4)
BACKGROUND SOIL SAMPLE LOCATION
GRAB WATER SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 5)
MONITORING WELL LOCATION
SANITARY SEWER (APPROXIMATE)
STORM SEWER (APPROXIMATE)
NOTES:
1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
1,1,2-TCA = 1,1,2-TRICHLOROETHANE
1,1-DCA = 1,1-DICHLOROETHANE
1,1-DCE = 1,1-DICHLOROETHENE
1,2,4-TCB = 1,2,4-TRICHLOROBENZENE
cis-1,2-DCE = cis-1,2-DICHLOROETHENE
DBCM = DIBROMOCHLOROMETHANE
MC = METHYLENE CHLORIDE
MIBK = 4-METHYL-2-PENTANONE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
trans-1,2-DCE = trans-1,2-DICHLOROETHENE
VC = VINYL CHLORIDE
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULT IN BOLD BLUE FONT IS ABOVE ONE OR MORE TACO SCREENING STANDARD.
SAMPLE ID (DEPTH)
ANALYTE DETECTED
SB-24 (12') RESULT (ug/kg)
1,1-DCA 0.83 J
RESULTS REPORTED IN MICROGRAMS PER KILOGRAM (ug/kg)
FIGURE 5
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
SOIL SAMPLE RESULTS
FACILITY EXTERIOR LOCATIONS
MWH
Drawn By & Date: DTM 01/20/12
Approved By & Date:
Revised By & Date: DLF 03/07/13
Approved By & Date:



north
SB-02 (6') RESULT (ug/kg)
1,1,1-TCA 2.5 J
MC 1.2 JB
TCE 2.3 J
SB-02(8.5') RESULT (ug/kg)
1,1,1-TCA 56
1,1-DCE 2.5 J
ACETONE 7.2 J
cis-1,2-DCE 1.1 J
MC 1.1 JB
PCE 1.8 J
TCE 130
SB-03 (4') RESULT (ug/kg)
1,1,1-TCA 20
1,1-DCE 1.2 J
MC 2.0 JB
TCE 18
SB-03 (12') RESULT (ug/kg)
1,1,1-TCA 7.2
MC 1.3 JB
TCE 4.0 J
SB-20 (20') RESULT (ug/kg)
1,1-DCE 1,300
SB-32 (32') RESULT (ug/kg)
1,1-DCE 1.9 J
TCE 1.1 J
SB-07 (20') RESULT (ug/kg)
1,1-DCE 35,000
1,2-DCA 940 J
2-BUTANONE 3,700
SB-28 (28') RESULT (ug/kg)
1,1,1-TCA 13
PCE 1.2 J
SB-28 (42') RESULT (ug/kg)
1,1,1-TCA 0.94 J
SB-10 (14') RESULT (ug/kg)
1,1-DCE 2.0 J
MC 1.7 JB
SB-10 (20') RESULT (ug/kg)
1,1-DCA 1.0 J
1,1-DCE 8.2
MC 2.0 JB
SB-09 (20') RESULT (ug/kg)
1,1,1-TCA 16
1,1-DCA 37
1,1-DCE 140
MC 1.6 JB
TCE 0.905 J
VC 1.8 J
SB-31 (10') RESULT (ug/kg)
CHLOROETHANE 2.6 J
NAPHTHALENE 2,000
SB-29 (42') RESULT (ug/kg)
1,1,1-TCA 0.94 J
SB-01 (5') RESULT (ug/kg)
1,1,1-TCA 2.8 J
MC 1.5 JB
SB-01(12.5') RESULT (ug/kg)
1,1,1-TCA 6.2
ACETONE 5.3 J
MC 0.88 JB
TCE 1.6 J
SB-05 (5') RESULT (ug/kg)
1,1,1-TCA 3.5 J
1,2,4-TCB 0.91 J
MC 1.8 JB
TCE 7.1
SB-05 (16') RESULT (ug/kg)
1,1,1-TCA 3.8 J
MC 0.97 JB
TCE 6.5
SB-04 (8') RESULT (ug/kg)
1,1,1-TCA 2.3 J
MC 0.78 JB
TCE 1.4 J
SB-04 (18') RESULT (ug/kg)
1,1,1-TCA 3.9 J
MC 0.73 JB
TCE 1.8 J
SB-12 (2') RESULT (ug/kg)
1,1-DCE 0.88 J
MC 3.9 JB
TCE 1.3 J
SB-12 (10') RESULT (ug/kg)
1,1,1-TCA 1.9 J
1,1-DCE 5.1
MC 2.2 JB
TCE 1.1 J
SB-06 (15') RESULT (ug/kg)
1,1,1-TCA 4,600
1,1-DCA 150 J
1,1-DCE 6,500
1,2-DCA 410
MC 82 J
PCE 77 J
TCE 46 J
SB-33 (5') RESULT (ug/kg)
1,1-DCA 1.5 J
TCE 4.0 J
SB-33 (9') RESULT (ug/kg)
NO VOCs DETECTED
SB-08 (28') RESULT (ug/kg)
1,1,1-TCA 12,000
1,1-DCA 15,000
1,1-DCE 15,000
1,2-DCA 1,100 J
MC 300 J
SB-34 (20') RESULT (ug/kg)
1,1-DCA 60
1,1-DCE 4.8 J
SB-11 (12') RESULT (ug/kg)
MC 2.3 JB
SB-11 (13') RESULT (ug/kg)
1,1,1-DCE 1.1 J
MC 2.2 JB
RECEIVING AREA
PLATING AREA
FORMER TCE UST
FORMER TCA AST
NURSE'S STATION
MAINTENANCE
LABEL ROOM
COLD CONTROL AREA
THERMOPLASTIC
SERVICE AREA
FORMER DEGREASER
POWER ELEMENT
POWER ELEMENT AREA
OFFICE AREA
ABANDONED SPRINKLER MAIN AND SUMP
MILLING AND PUNCH PRESS AREA
TAPPING AREA
SCREW MACHINE AREA
TOOL ROOM
DIE CAST AREA
PUNCH PRESS AREA
STOCKROOM
QUALITY INSTRUMENT LAB
TRANSDUCER
MORRIS ST.
MAIN BUILDING FIRST FLOOR
100 50 0 100
APPROXIMATE SCALE IN FEET
LEGEND:
SOIL GAS SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 6)
SOIL BORING LOCATION (RESULTS SHOWN ON FIGURES 3&4)
BACKGROUND SOIL SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 4)
GRAB WATER SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 5)
MONITORING WELL LOCATION
SAN SANITARY SEWER (APPROXIMATE)
STM STORM SEWER (APPROXIMATE)
NOTES:
1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
1,1,2-TCA = 1,1,2-TRICHLOROETHANE
1,1-DCA = 1,1-DICHLOROETHANE
1,1-DCE = 1,1-DICHLOROETHENE
1,2,4-TCB = 1,2,4-TRICHLOROBENZENE
cis-1,2-DCE = cis-1,2-DICHLOROETHENE
DBCM = DIBROMOCHLOROMETHANE
MC = METHYLENE CHLORIDE
MIBK = 4-METHYL-2-PENTANONE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
trans-1,2-DCE = trans-1,2-DICHLOROETHENE
VC = VINYL CHLORIDE
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULT IN BOLD BLUE FONT IS ABOVE ONE OR MORE TACO SCREENING STANDARD.
SAMPLE ID (DEPTH) SB-20 (20') RESULT (ug/kg)
ANALYTE DETECTED 1,1-DCE 1,300
RESULTS REPORTED IN MICROGRAMS PER KILOGRAM (ug/kg)
FIGURE 6
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
SOIL SAMPLE RESULTS
FACILITY INTERIOR LOCATIONS
MWH
Drawn By & Date: DTM 01/20/12
Approved By & Date:
Revised By & Date: DLF 03/07/13
Approved By & Date:



SB-21 (20')	Result (µg/L)
1,1,1-TCA	190
1,1-DCA	75
1,1-DCE	**110**
1,2,4-TCB	0.50 J
1,2-DCA	1.6 J
Chloroethane	3.6 J
cis-1,2-DCE	26
PCE	5
TCE	**36**
VC	**7.3**

SB-17 (24')	Result (µg/L)
1,1,1-TCA	2.8 J
1,1-DCA	2.3 J
1,1-DCE	2.4 J
cis-1,2-DCE	**150**
Toluene	1.9 J
trans-1,2-DCE	4.1 J
TCE	**130**
VC	**20**

SB-24 (15')	Result (µg/L)
1,1-DCA	50
1,1-DCE	1.3 J
cis-1,2-DCE	19
Toluene	2.2 J
TCE	**9.4**

SB-15 (12')	Result (µg/l)
1,1,1-TCA	31
1,1,2-TRI	71
1,1-DCA	360
1,1-DCE	**66**
1,2-DCA	2.2 J
Chloroethane	68
Dichloro	13
MC	3.9 J
TCE	1.8 J

SB-41 (15')	Result (µg/L)
No VOCs Detected	

SB-26 (14')	Result (µg/L)
No VOCs Detected	

SB-22 (9')	Result (µg/L)
No VOCs Detected	

SB-39 (12')	Result (µg/L)
No VOCs Detected	

SB-23 (11')	Result (µg/L)
No VOCs Detected	

SB-42 (15')	Result (µg/l)
1,1-DCA	1.5 J

SB-43 (24')	Result (µg/L)
No VOCs Detected	

SB-40 (12')	Result (µg/L)
No VOCs Detected	

MW10 (5-9')	Result (µg/L)
1,1-DCA	22
1,1,1-TCA	11
cis-1,2-DCE	62
CB	0.91 J
TCE	**13**
VC	**7.9**

MW10 (9-14')	Result (µg/L)
cis-1,2-DCE	**22000**
CB	**440 J**
TCE	**2200**
trans-1,2-DCE	**180 J**
VC	**1200**

MW10 (69-74')	Result (µg/L)
No VOCs Detected	

MW10 (89-94')	Result (µg/L)
No VOCs Detected	

MW10 (99-104')	Result (µg/L)
No VOCs Detected	

SB-35 (20')	Result (µg/l)
1,1,1-TCA	**850**
1,1-DCA	67
1,1-DCE	**690**
1,2-DCA	**13 J**
cis-1,2-DCE	14 J
TCE	**170**

SB-44 (24')	Result (µg/L)
1,1,1-TCA	11
1,1-DCA	4.4 J
1,1-DCE	**15**
TCE	**8.5**

SB-50 (17')	Result (µg/L)
1,1-DCA	6.8
cis-1,2-DCE	3.7 J
trans-1,2-DCE	1.0 J
TCE	4.1 J

SB-51 (16')	Result (µg/L)
1,2,4-TCB	0.55 JB

SB-49 (24')	Result (µg/L)
No VOCs Detected	

SB-48 (15.5')	Result (µg/L)
No VOCs Detected	

SB-47 (11')	Result (µg/L)
1,2,4-TCB	1.1 JB

SB-46 (18')	Result (µg/L)
No VOCs Detected	

SB-45 (18')	Result (µg/L)
1,2,4-TCB	7.8 B
cis-1,2-DCE	38
trans-1,2-DCE	0.98 J

COMPOUND	IEPA CLASS I GROUNDWATER STANDARD (µg/L)
1,1,1-TCA	200
1,1,2-TRI	-
1,1-DCA	700
1,1-DCE	7
1,2,4-TCB	70
1,2,4-TRI	-
1,2-DCA	5
CB	100
Chloroethane	-
cis-1,2-DCE	70
Dichloro	-
MC	5
PCE	5
TCE	5
Toluene	1,000
trans-1,2-DCE	100
VC	2

NOTES:

1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
   1,1-DCA = 1,1-DICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   1,1,2-TRI = 1,1,2-TRICHLORO -1,2,2-TRIFLOUROETHANE
   1,2-DCA = 1,2-DICHLOROETHANE
   1,2,4-TCB = 1,2,4-TRICHLOROBENZENE
   CB = CHLOROBENZENE
   cis-1,2-DCE = cis-1,2-DICHLOROETHENE
   Dichloro = DICHLORODIFLUOROMETHANE
   MC = METHYLENE CHLORIDE
   PCE = TETRACHLOROETHENE
   TCE = TRICHLOROETHENE
   trans-1,2-DCE = trans-1,2-DICHLOROETHENE
   VC = VINYL CHLORIDE
   J = CONCENTRATION IS ESTIMATED
   B = COMPOUND FOUND IN BLANK AND SAMPLE
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD.
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)

LEGEND:

▲ Grab Groundwater Sample

0 90 180 360 Feet

Orthoimagery Source: Whiteside County, Illinois

Figure 7
Grab Groundwater Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH

December 2011
February 2012
August 2012
October 2012

<u>Document 10 – Part 3</u>

Expert Report of Konrad J. Banaszak, Genesis Engineering & Development, dated 11/13/2014

COMPOUND	USEPA SCREENING CRITERIA (ug/m3)	SHALLOW SOIL VAPOR SCREENING CRITERIA (ug/m3)	DEEP SOIL VAPOR SCREENING CRITERIA (ug/m3)
1,1,1-TCA	5,200	52,000	520,000
1,1-DCA	1.5	15	150
1,1-DCE	210	2,100	21,000
CHLOROFORM	0.11	1.1	11
cis-1,2-DCE	–	–	–
MC	5.2	52	520
PCE	0.41	4.1	41
trans-1,2-DCE	63	630	6,300
TCE	0.43	4.3	43
VC	0.16	1.6	16

SEE NOTE 4

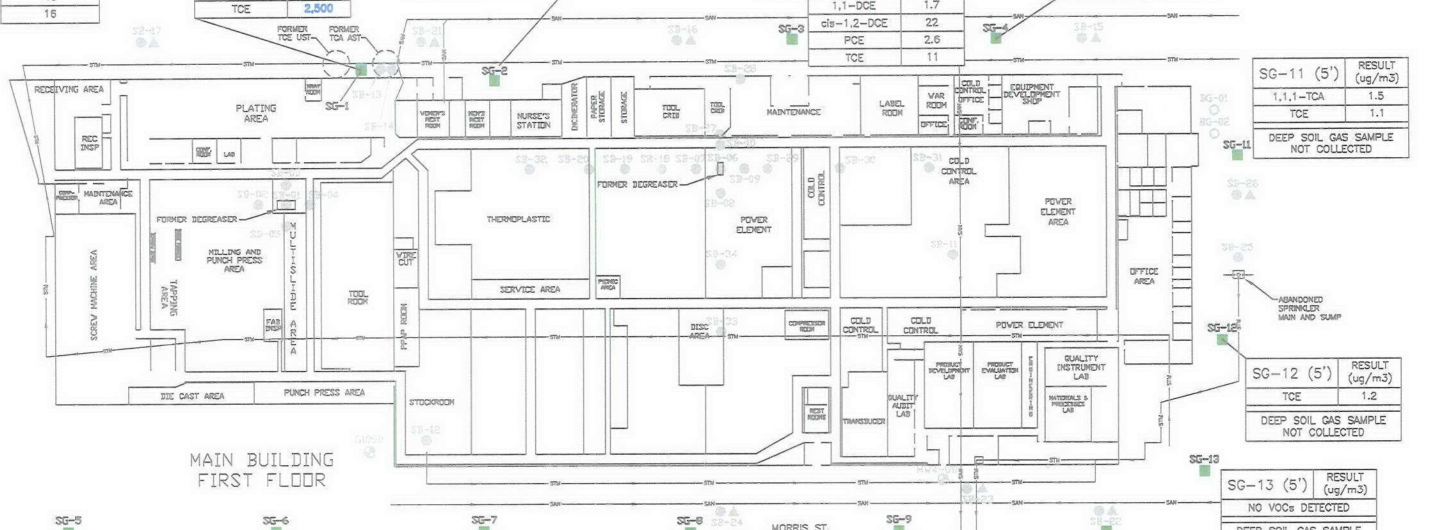
SG-1 (5')	RESULT (ug/m3)
1,1,1-TCA	**410,000**
1,1-DCE	**8,900**
PCE	**7,100**
TCE	**6,400**
SG-1 (12')	**RESULT (ug/m3)**
1,1,1-TCA	71,000
1,1-DCA	**1,100**
1,1-DCE	5,500
TCE	**2,500**

SG-2 (5')	RESULT (ug/m3)
1,1,1-TCA	63
1,1-DCA	2.8
1,1-DCE	1.1
CHLOROFORM	**7.7**
TCE	**70**
SG-2 (13')	**RESULT (ug/m3)**
1,1,1-TCA	6.7

SG-3 (5')	RESULT (ug/m3)
1,1,1-TCA	550
1,1-DCA	**42**
CHLOROFORM	**23**
cis-1,2-DCE	120
trans-1,2-DCE	30
TCE	**2,000**
SG-3 (13')	**RESULT (ug/m3)**
1,1,1-TCA	5.3
1,1-DCA	9.8
1,1-DCE	1.7
cis-1,2-DCE	22
PCE	2.6
TCE	11

SG-4 (5')	RESULT (ug/m3)
1,1,1-TCA	1.1
SG-4 (13')	**RESULT (ug/m3)**
1,1,1-TCA	44
1,1-DCA	**510**
1,1-DCE	500

SG-11 (5')	RESULT (ug/m3)
1,1,1-TCA	1.5
TCE	1.1
DEEP SOIL GAS SAMPLE NOT COLLECTED	



SG-12 (5')	RESULT (ug/m3)
TCE	1.2
DEEP SOIL GAS SAMPLE NOT COLLECTED	

SG-13 (5')	RESULT (ug/m3)
NO VOCs DETECTED	
DEEP SOIL GAS SAMPLE NOT COLLECTED	

SG-10 (5')	RESULT (ug/m3)
NO VOCs DETECTED	
DEEP SOIL GAS SAMPLE NOT COLLECTED	

SG-5 (5')	RESULT (ug/m3)
1,1,1-TCA	25,000
1,1-DCE	**32,000**
TCE	**940**
SG-5 (10')	**RESULT (ug/m3)**
1,1,1-TCA	52,000
1,1-DCE	**54,000**
TCE	**3,000**

SG-6 (5')	RESULT (ug/m3)
1,1,1-TCA	14,000
1,1-DCE	**27,000**
TCE	**470**
SG-6 (10')	**RESULT (ug/m3)**
1,1,1-TCA	19,000
1,1-DCE	**43,000**
TCE	**740**

SG-7 (5')	RESULT (ug/m3)
1,1,1-TCA	310
1,1-DCE	690
cis-1,2-DCE	7.8
TCE	**120**
SG-7 (10')	**RESULT (ug/m3)**
1,1,1-TCA	4,400
1,1-DCA	**880**
1,1-DCE	**26,000**
TCE	**190**

SG-8 (5')	RESULT (ug/m3)
1,1,1-TCA	3.1
SG-8 (10')	**RESULT (ug/m3)**
1,1,1-TCA	130
1,1-DCA	**170**
1,1-DCE	240
CHLOROFORM	6.2
cis-1,2-DCE	150
trans-1,2-DCE	19
TCE	**100**

SG-9 (5')	RESULT (ug/m3)
1,1,1-TCA	1.2
1,1-DCA	**38**
1,1-DCE	14
CHLOROFORM	**2.2**
cis-1,2-DCE	32
MC	3.5
trans-1,2-DCE	2.5
TCE	**72**
VC	**48**
DEEP SOIL GAS SAMPLE NOT COLLECTED	

100 50 0 100
APPROXIMATE SCALE IN FEET

LEGEND:

- SOIL GAS SAMPLE LOCATION
- SOIL BORING LOCATION (RESULTS SHOWN ON FIGURES 3&4)
- BACKGROUND SOIL SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 4)
- GRAB WATER SAMPLE LOCATION (RESULTS SHOWN ON FIGURE 5)
- MONITORING WELL LOCATION
- SAN — SANITARY SEWER (APPROXIMATE)
- STM — STORM SEWER (APPROXIMATE)

NOTES:

1. 1,1,1-TCA = 1,1,1 – TRICHLOROETHANE
   1,1-DCA = 1,1-DICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   cis-1,2-DCE = cis-1,2-DICHLOROETHENE
   MC = METHYLENE CHLORIDE
   PCE = TETRACHLOROETHENE
   TCE = TRICHLOROETHENE
   trans-1,2-DCE = trans-1,2-DICHLOROETHENE
   VC = VINYL CHLORIDE
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULT IN BOLD BLUE FONT IS ABOVE SCREENING CRITERIA.
4. SOIL VAPOR SCREENING LEVELS WERE CALCULATED FROM USEPA REGIONAL SCREENING LEVELS ASSUMING A 1X10-5 CANCER RISK LEVEL AND DEEP AND SHALLOW SOIL VAPOR ATTENUATION FACTORS OF 0.01 AND 0.1, RESPECTIVELY.
5. DEEP SOIL GAS SAMPLES WERE NOT COLLECTED AT LOCATIONS WHERE SHALLOW GROUNDWATER WAS WITHIN 10 FEET OF LAND SURFACE.

SAMPLE ID (DEPTH) → SG-4 (5') | RESULT (ug/m3)
ANALYTE DETECTED → 1,1,1-TCA | 1.1
RESULTS REPORTED IN MICROGRAMS PER CUBIC METER (ug/m3)

FIGURE 8

GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS

SOIL GAS SAMPLE RESULTS

MWH

Drawn By & Date: DTM 01/20/12 | Approved By & Date: | Revised By & Date: DLF 03/07/13 | Approved By & Date:

\\USDEN1S02\Projects\1011400-1011499\1011400 – GE Morrison\4.0 Execution (Project Deliverables)\4.1 Drawings\Report\GE Morrison Figures v2.dwg Apr/11/13

NOTES:
1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON JANUARY 12, 2012.
2. SURFACE WATER ELEVATIONS MEASURED BY NORWEST SURVEYING ON JANUARY 12, 2012.

LEGEND:

Monitoring Well

(625.82) Potentiometric Elevation - Feet Above Mean Sea Level

625.0 Potentiometric Contour Line

625.0 Inferred Potentiometric Contour Line

0 180 360 720 Feet

N

Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois.

Figure 9A
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH

January 2012

NOTES:
1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON AUGUST 8, 2012.
2. NM = Not Measured in August 2012

LEGEND:

Monitoring Well

(624.13) Potentiometric Elevation - Feet Above Mean Sea Level

625.0 Potentiometric Contour Line

625.0 Inferred Potentiometric Contour Line

0 180 360 720 Feet

Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois

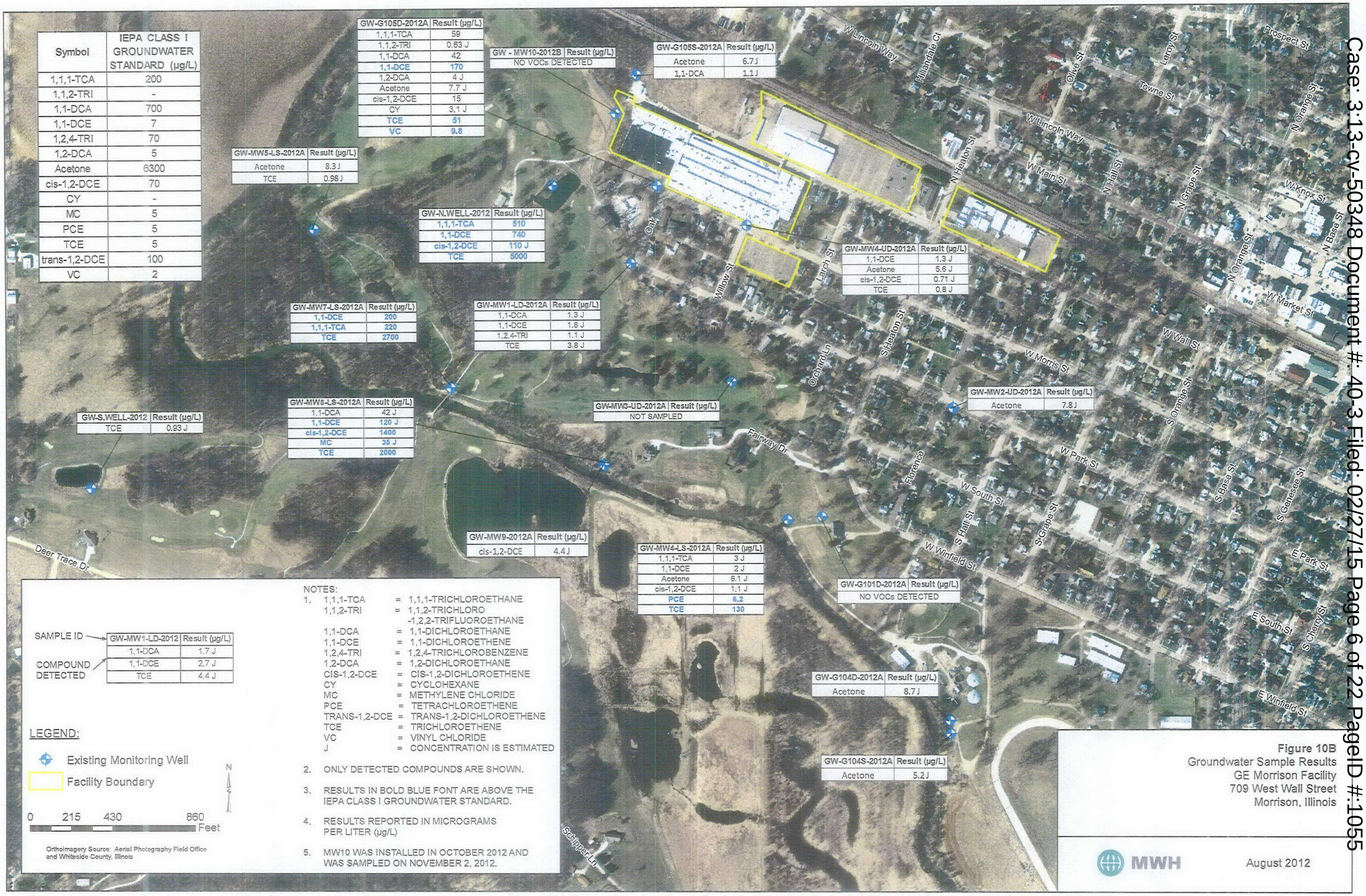
Figure 9B
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH

August 2012


Compound | IEPA Class I Groundwater Standard (µg/L)
1,1-DCA | 700
1,1-DCE | 7
Acetone | 6300
cis-1,2-DCE | 70
PCE | 5
TCE | 5
1,1,1-TCA | 200
1,2-DCA | 5
VC | 2
GW-G105S-2012 Result (µg/L)
1,1-DCA 1.5 J
GW-G105D-2012 Result (µg/L)
1,1-DCA 15
1,1-DCE 9
1,2-DCA 2 J
Acetone 5.9 J
cis-1,2-DCE 2.4 J
TCE 2.6 J
VC 2.8 J
GW-MW5-LS-2012 Result (µg/L)
NO VOCs DETECTED
GW-MW1-LD-2012 Result (µg/L)
1,1-DCA 1.7 J
1,1-DCE 2.7 J
TCE 4.4 J
GW-MW4-UD-2012 Result (µg/L)
Acetone 6.9 J
cis-1,2-DCE 0.95 J
GW-MW7-LS-2012 Result (µg/L)
1,1-DCA 8.4 J
1,1-DCE 83
1,1,1-TCA 56
cis-1,2-DCE 4 J
TCE 480
GW-MW3-UD-2012 Result (µg/L)
1,1-DCE 1.1 J
PCE 10
TCE 3.7 J
GW-MW2-UD-2012 Result (µg/L)
PCE 2 J
GW-MW8-LS-2012 Result (µg/L)
1,1-DCA 71 J
1,1-DCE 150
cis-1,2-DCE 42 J
TCE 4800
GW-MW4-LS-2012 Result (µg/L)
1,1-DCE 3.3 J
cis-1,2-DCE 1.4 J
PCE 7
TCE 140
GW-G101D-2012 Result (µg/L)
cis-1,2-DCE 2.8 J
GW-G104D-2012 Result (µg/L)
NO VOCs DETECTED
GW-G104S-2012 Result (µg/L)
NO VOCs DETECTED
NOTES:
1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
1,1-DCA = 1,1-DICHLOROETHANE
1,1-DCE = 1,1-DICHLOROETHENE
1,2-DCA = 1,2-DICHLOROETHANE
cis-1,2-DCE = CIS-1,2-DICHLOROETHENE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
VC = VINYL CHLORIDE
J = CONCENTRATION IS ESTIMATED
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD.
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)
SAMPLE ID
COMPOUND DETECTED
GW-MW1-LD-2012 Result (µg/L)
1,1-DCA 1.7 J
1,1-DCE 2.7 J
TCE 4.4 J
LEGEND:
Facility Boundary
N
0 215 430 860 Feet
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
W Lincoln Way
Hillandale Ct
N Heaton St
W Main St
N Hall St
N Grape St
N Orange St
N Base St
W Knox St
W Market St
W Wall St
W Morris St
S Heaton St
Larch St
Willow St
Oak
Orchard Ln
Fairway Dr
Florence
W South St
W Winfield St
W Park St
S Hall St
S Grape St
S Orange St
S Base St
S Genesee St
E Morris St
E Park St
E South St
S Cherry St
E Winfield St
Olive St
Towne St
Leroy St
Prospect St
Schipper Ln
Figure 10A
Groundwater Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
January 2012

Symbol	IEPA CLASS I GROUNDWATER STANDARD (µg/L)
1,1,1-TCA	200
1,1,2-TRI	-
1,1-DCA	700
1,1-DCE	7
1,2,4-TRI	70
1,2-DCA	5
Acetone	6300
cis-1,2-DCE	70
CY	-
MC	5
PCE	5
TCE	5
trans-1,2-DCE	100
VC	2



SAMPLE ID → GW-MW1-LD-2012 Result (µg/L)

COMPOUND DETECTED → 1,1-DCA 1.7 J; 1,1-DCE 2.7 J; TCE 4.4 J

LEGEND:

- Existing Monitoring Well
- Facility Boundary

0 215 430 860 Feet

N

Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois

NOTES:

1.
   - 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
   - 1,1,2-TRI = 1,1,2-TRICHLORO -1,2,2-TRIFLUOROETHANE
   - 1,1-DCA = 1,1-DICHLOROETHANE
   - 1,1-DCE = 1,1-DICHLOROETHENE
   - 1,2,4-TRI = 1,2,4-TRICHLOROBENZENE
   - 1,2-DCA = 1,2-DICHLOROETHANE
   - CIS-1,2-DCE = CIS-1,2-DICHLOROETHENE
   - CY = CYCLOHEXANE
   - MC = METHYLENE CHLORIDE
   - PCE = TETRACHLOROETHENE
   - TRANS-1,2-DCE = TRANS-1,2-DICHLOROETHENE
   - TCE = TRICHLOROETHENE
   - VC = VINYL CHLORIDE
   - J = CONCENTRATION IS ESTIMATED
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD.
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)
5. MW10 WAS INSTALLED IN OCTOBER 2012 AND WAS SAMPLED ON NOVEMBER 2, 2012.

Figure 10B
Groundwater Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH

August 2012

COMPOUND	IEPA Derived Water			
	Aquatic Life		Human	
	Acute	Chronic	HTC	HNC
1,1,1-TCA	4,900	390	-	-
1,1-DCE	3,000	240	-	120
cis-1,2-DCE	-	-	-	-
TCE	12,000	940	-	26

COMPOUND	IEPA CLASS I GROUNDWATER STANDARD (µg/L)
1,1,1-TCA	200
1,1-DCE	7
cis-1,2-DCE	70
TCE	5

GW-N.WELL-2012	Result (µg/L)
08/08/12	
1,1,1-TCA	**510**
1,1-DCE	**740**
cis-1,2-DCE	**110 J**
TCE	**5000**

SW-N.POND-2012	Result (µg/L)		
	09/11/12	10/31/12	01/30/13
1,1,1-TCA	140	3.1 J	Not Detected
1,1-DCE	110	2.3 J	Not Detected
cis-1,2-DCE	35 J	4.0 J	1.9 J
TCE	**880**	19	6.9

SW-SPOND-2012	Result (µg/L)
11/02/12	
NO VOCs DETECTED	

GW-S.WELL-2012	Result (µg/L)
08/08/12	
TCE	0.93 J

LEGEND:

- Supply Well
- Surface Water Location
- Facility Boundary

0 125 250 500 Feet

N

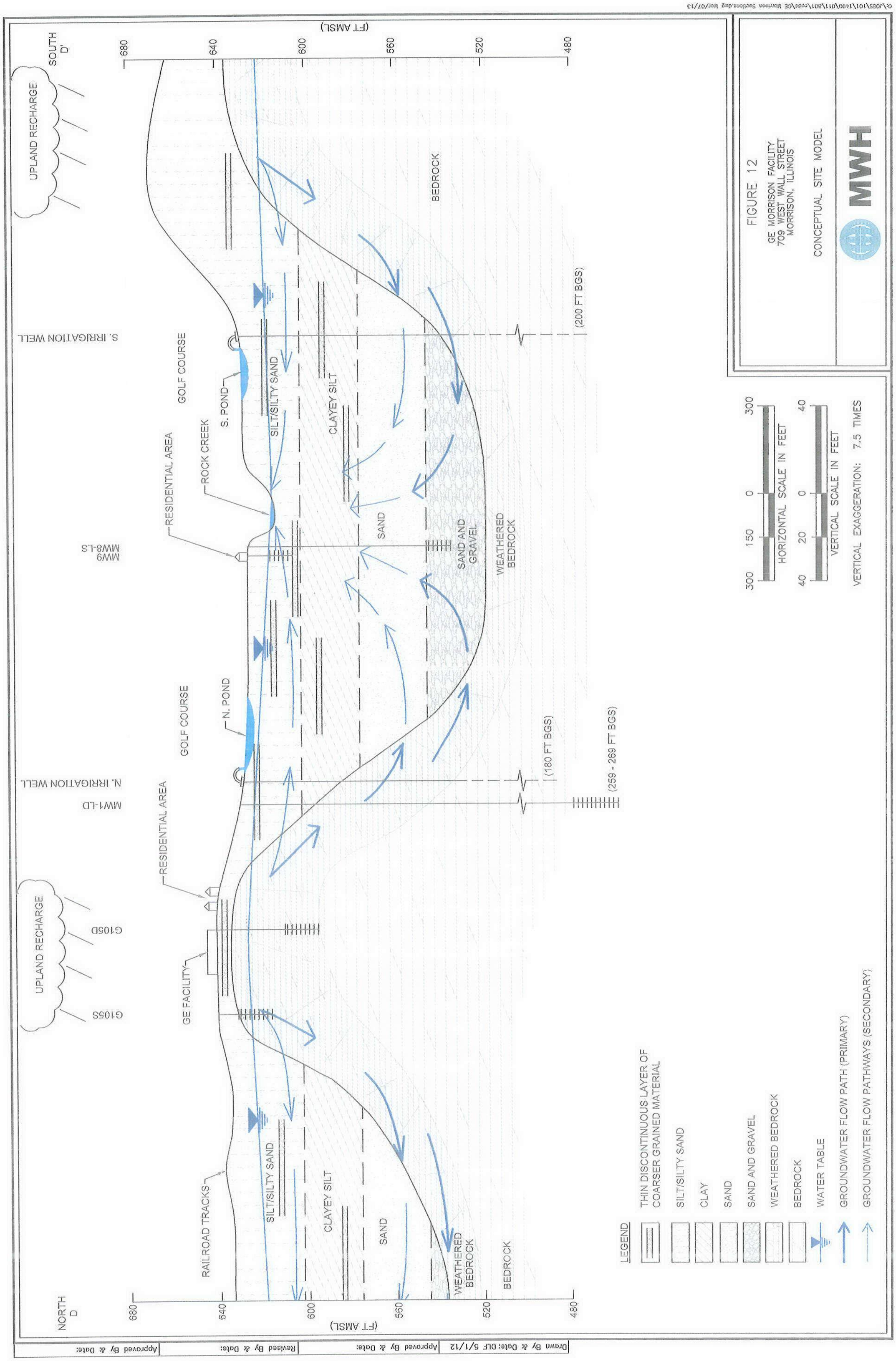
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois

NOTES:

1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   cis-1,2-DCE = cis-1,2-DICHLOROETHENE
   TCE = TRICHLOROETHENE
   J = CONCENTRATION IS ESTIMATED
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD OR IEPA DERIVED WATER QUALITY CRITERIA (SURFACE WATER).
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)
5. IRRIGATION WELLS SAMPLED IN AUGUST 2012.
6. SURFACE WATER SAMPLE COLLECTED IN SEPTEMBER 2012, OCTOBER 2012, NOVEMBER 2012, AND JANUARY 2013.

Figure 11
Surface Water and Irrigation Well Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH


NORTH
D
SOUTH
D'
(FT AMSL)
680
640
600
560
520
480
UPLAND RECHARGE
UPLAND RECHARGE
RAILROAD TRACKS
GE FACILITY
RESIDENTIAL AREA
GOLF COURSE
N. POND
ROCK CREEK
S. POND
G105S
G105D
MW1-LD
N. IRRIGATION WELL
MW9
MW8-LS
S. IRRIGATION WELL
SILT/SILTY SAND
CLAYEY SILT
SAND
SAND AND GRAVEL
WEATHERED BEDROCK
BEDROCK
(180 FT BGS)
(259 - 269 FT BGS)
(200 FT BGS)
LEGEND
THIN DISCONTINUOUS LAYER OF COARSER GRAINED MATERIAL
SILT/SILTY SAND
CLAY
SAND
SAND AND GRAVEL
WEATHERED BEDROCK
BEDROCK
WATER TABLE
GROUNDWATER FLOW PATH (PRIMARY)
GROUNDWATER FLOW PATHWAYS (SECONDARY)
300 0 150 300
HORIZONTAL SCALE IN FEET
40 0 20 40
VERTICAL SCALE IN FEET
VERTICAL EXAGGERATION: 7.5 TIMES
FIGURE 12
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CONCEPTUAL SITE MODEL
MWH
Drawn By & Date: DLF 5/1/12
Approved By & Date:
Revised By & Date:
Approved By & Date:

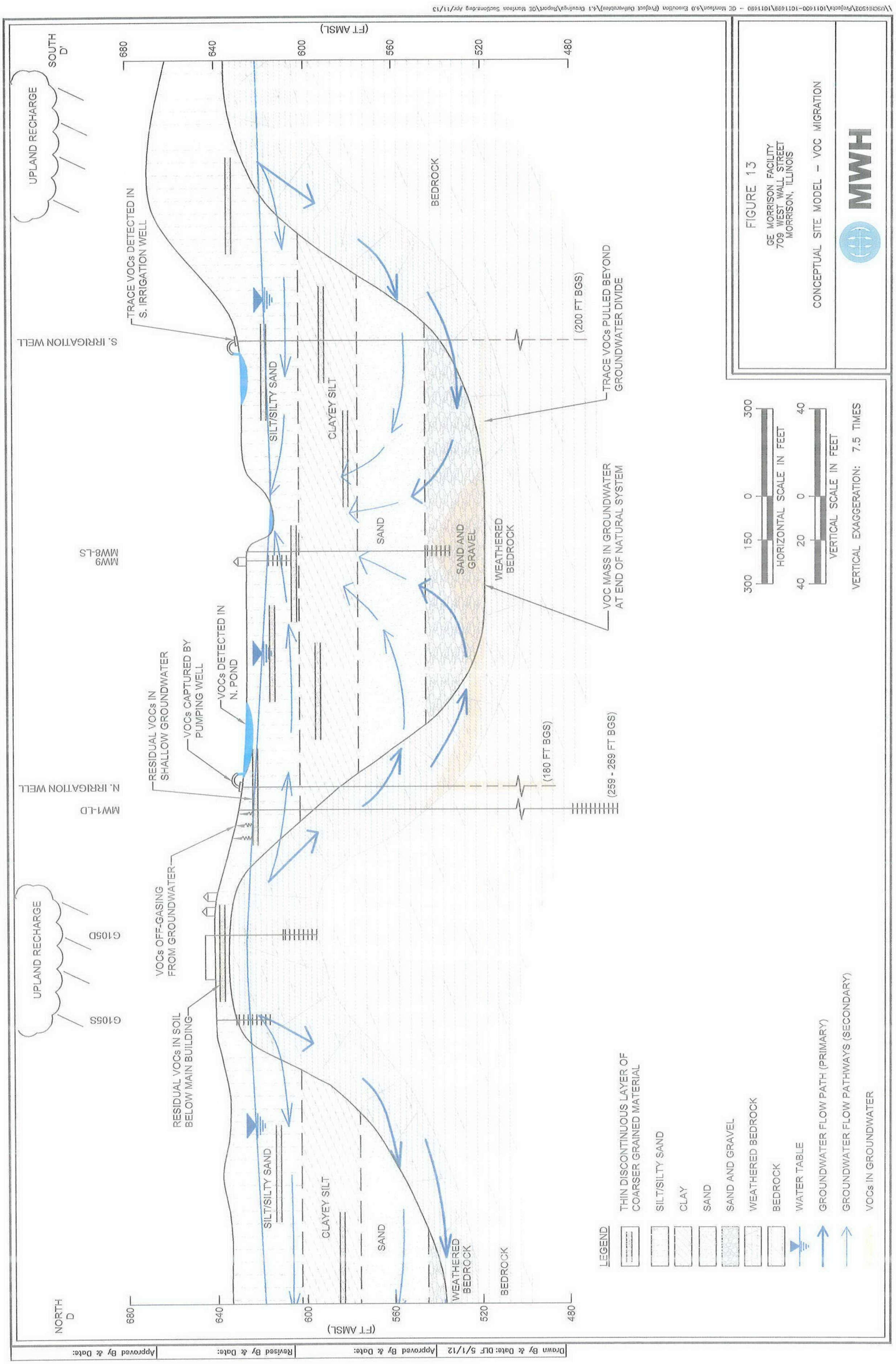

NORTH
D
SOUTH
D'
(FT AMSL)
680
640
600
560
520
480
UPLAND RECHARGE
UPLAND RECHARGE
G105S
G105D
MW1-LD
N. IRRIGATION WELL
MW9
MW8-LS
S. IRRIGATION WELL
RESIDUAL VOCs IN SOIL BELOW MAIN BUILDING
VOCs OFF-GASING FROM GROUNDWATER
RESIDUAL VOCs IN SHALLOW GROUNDWATER
VOCs CAPTURED BY PUMPING WELL
VOCs DETECTED IN N. POND
TRACE VOCs DETECTED IN S. IRRIGATION WELL
TRACE VOCs PULLED BEYOND GROUNDWATER DIVIDE
VOC MASS IN GROUNDWATER AT END OF NATURAL SYSTEM
(180 FT BGS)
(259 - 269 FT BGS)
(200 FT BGS)
SILT/SILTY SAND
CLAYEY SILT
SAND
SAND AND GRAVEL
WEATHERED BEDROCK
BEDROCK
LEGEND
THIN DISCONTINUOUS LAYER OF COARSER GRAINED MATERIAL
SILT/SILTY SAND
CLAY
SAND
SAND AND GRAVEL
WEATHERED BEDROCK
BEDROCK
WATER TABLE
GROUNDWATER FLOW PATH (PRIMARY)
GROUNDWATER FLOW PATHWAYS (SECONDARY)
VOCs IN GROUNDWATER
HORIZONTAL SCALE IN FEET
300 150 0 300
VERTICAL SCALE IN FEET
40 20 0 40
VERTICAL EXAGGERATION: 7.5 TIMES
FIGURE 13
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CONCEPTUAL SITE MODEL – VOC MIGRATION
MWH
Drawn By & Date: DLF 5/1/12
Approved By & Date:
Revised By & Date:
Approved By & Date:

Table 1
Groundwater Monitoring Well Summary
GE Morrison Facility
Morrison, IL

Well ID	Type	Screened Formation	Well Depth (feet bgs)	Date Installed	Notes
G101D	Stickup	LD	239	Phase I (1987)[a]	
G102D	Stickup	UD	82.2	Phase I (1987)[a]	Not Sampled[1]
G103S	Stickup	LS	27.5	Phase I (1987)[a]	Not Sampled[1]
G104S	Stickup	LS	17.7	Phase I (1987)[a]	
G104D	Stickup	UD	49	Phase I (1987)[a]	
G105S/R	Stickup	US	24	Phase I (1987)[a]	Replacement Well[2]
G105D	Stickup	UD	48.1	Phase I (1987)[a]	
G106D	Stickup	UD	22.5	Phase I (1987)[a]	Not Sampled[1]
MW1-LD	Stickup	LD	269	Phase II (1988-1989)[b]	
MW2-UD	Stickup	UD	62	Phase II (1988-1989)[b]	
MW3-UD	Flushmount	UD	102	Phase II (1988-1989)[b]	Damaged[3]
MW4-LS	Stickup	LS	93.5	Phase II (1988-1989)[b]	
MW4-UD	Stickup	UD	91	Phase II (1988-1989)[b]	
MW5-LS	Flushmount	LS	83	Phase II (1988-1989)[b]	
MW6-BF	NA	BF	10.8	Phase II (1988-1989)[b]	Abandoned[4]
MW7-LS	Flushmount	LS	100	FSI (2011)[c]	
MW8-LS	Flushmount	LS	96	FSI (2011)[c]	
MW-9	Flushmount	WT	19.5	FSI (2012)[c]	
MW-10	Flushmount	LS	101.5	FSI (2012)[c]	

Notes:

bgs - below ground surface
BF - Backfill
LD - Lower Dolomite
LS - Lower Unconsolidated Sediments
UD - Upper Dolomite
US - Upper Unconsolidated Sediments
WT - Water Table

[a] Phase I Investigation conducted by John Mathes & Associates (1987) for IEPA.

[b] Phase II Investiation conducted by Canonie Environmental (1988-1989) for General Electric.

[c] Focused Site Investigation conducted by MWH (2011-2013) for General Electric.

[1] Wells G102D, G103S and G106D are not sampled as part of General Electric's ongoing investigation.

[2] G105S/R installed as replacement well for G105S.

[3] MW3-UD is damaged.

[4] MW6-BF was installed in backfill of existing city sewer, it was abandoned by Canonie.

Table 3
Soil Sample Results
Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Exposure Route-Specific Values for Soils				Soil Component of the Groundwater Ingestion Exposure Route Values		SB01-5	SB01-12.5	SB02-6	SB02-8.5	SB03-4	SB03-4 Duplicate	SB03-12	SB04-8	SB04-18	SB05-5	SB05-16	SB06-15	SB07-20	SB07-20 Duplicate	SB08-28	SB09-20
		Industrial - Commercial		Construction Worker																			
		Ingestion µg/kg	Inhalation µg/kg	Ingestion µg/kg	Inhalation µg/kg	Class I µg/kg	Class II µg/kg																
VOC (SW846 8260)								12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/5/2011	12/6/2011	12/6/2011
1,1,1-Trichloroethane	µg/kg	--	1,200,000	--	1,200,000	2,000	9,600	**2.8 J**	**6.2**	**2.5 J**	**56**	**20**	**12**	**7.2**	**2.3 J**	**3.9 J**	**3.5 J**	**3.8 J**	**4,600**	*2,700 U*	**660 J**	**12,000**	**16**
1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
1,1,2-Trichloroethane	µg/kg	8,200,000	1,800,000	8,200,000	1,800,000	20	300	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	*290 U*	*2,700 U*	**2,900**	*1,400 U*	4.0 U
1,1-Dichloroethane	µg/kg	200,000,000	1,700,000	200,000,000	130,000	23,000	110,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	**150 J**	2,700 U	2,900 U	**15,000**	**37**
1,1-Dichloroethene	µg/kg	100,000,000	470,000	10,000,000	3,000	60	300	4.7 U	4.2 U	4.4 U	**2.5 J**	**1.2 J**	**0.91 J**	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	**6,500**	**35,000**	**42,000**	**15,000**	**140**
1,2,4-Trichlorobenzene	µg/kg	20,000,000	3,200,000	2,000,000	920,000	5,000	53,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	**0.91 J**	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
1,2-Dibromo-3-chloropropane	µg/kg	4,000	17,000	89,000	110	2	20	*4.7 U*	*4.2 U*	*4.4 U*	*4.4 U*	*4.5 U*	*4.4 U*	*4.9 U*	*4.1 U*	*4.5 U*	*4.4 U*	*4.2 U*	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	*4.0 U*
1,2-Dibromoethane (EDB)	µg/kg	2,900	120	62,000	160	0.4	4	*4.7 U*	*4.2 U*	*4.4 U*	*4.4 U*	*4.5 U*	*4.4 U*	*4.9 U*	*4.1 U*	*4.5 U*	*4.4 U*	*4.2 U*	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	*4.0 U*
1,2-Dichlorobenzene	µg/kg	180,000,000	560,000	18,000,000	310,000	17,000	43,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
1,2-Dichloroethane	µg/kg	63,000	700	1,400,000	990	20	100	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	**410**	**940 J**	**1,100 J**	**1,100 J**	4.0 U
1,2-Dichloropropane	µg/kg	84,000	23,000	1,800,000	500	30	150	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
1,4-Dichlorobenzene	µg/kg	--	17,000,000	--	340,000	2,000	11,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	1,400 U	4.0 U
2-Butanone (MEK)	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	**3,700**	**4,700**	1,400 U	4.0 U
2-Hexanone	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	**510 J**	1,400 U	4.0 U
Acetone	µg/kg	--	100,000,000	--	100,000,000	25,000	25,000	19 U	**5.3 J**	18 U	**7.2 J**	18 U	18 U	19 U	16 U	18 U	18 U	17 U	1,100 U	11,000 U	12,000 U	5,500 U	16 U
Benzene	µg/kg	100,000	1,600	2,300,000	2,200	30	170	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Bromodichloromethane	µg/kg	92,000	3,000,000	2,000,000	3,000,000	600	600	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Bromoform	µg/kg	720,000	100,000	16,000,000	140,000	800	800	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Bromomethane	µg/kg	2,900,000	15,000	1,000,000	3,900	200	1,200	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Carbon disulfide	µg/kg	200,000,000	720,000	20,000,000	9,000	32,000	160,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Carbon tetrachloride	µg/kg	44,000	640,000	410,000	900	32,000	160,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Chlorobenzene	µg/kg	41,000,000	210,000	4,100,000	1,300	1,000	6,500	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Chloroethane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U*	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Chloroform	µg/kg	940,000	540	2,000,000	760	600	2,900	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Chloromethane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
cis-1,2-Dichloroethene	µg/kg	20,000,000	1,200,000	20,000,000	1,200,000	400	1,100	4.7 U	4.2 U	4.4 U	**1.1 J**	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
cis-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	*4.7 U*	*4.2 U*	*4.4 U*	*4.4 U*	*4.5 U*	*4.4 U*	*4.9 U*	*4.1 U*	*4.5 U*	*4.4 U*	*4.2 U*	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Cyclohexane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Dibromochloromethane	µg/kg	41,000,000	1,300,000	41,000,000	1,300,000	400	400	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Ethylbenzene	µg/kg	200,000,000	400,000	20,000,000	58,000	13,000	19,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Isopropylbenzene (Cumene)	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Methyl acetate	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Methyl-tert-butyl ether	µg/kg	20,000,000	8,800,000	2,000,000	140,000	320	320	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Methylcyclohexane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Methylene chloride	µg/kg	760,000	24,000	12,000,000	34,000	20	200	**1.5 JB**	**0.88 JB**	**1.2 JB**	**1.1 JB**	**2.0 JB**	**1.0 JB**	**1.3 JB**	**0.78 JB**	**0.73 JB**	**1.8 JB**	**0.97 JB**	**82 J**	*2,700 U*	*2,900 U*	**300 J**	**1.6 JB**
Styrene	µg/kg	410,000,000	1,500,000	41,000,000	430,000	4,000	18,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Tetrachloroethene	µg/kg	110,000	20,000	2,400,000	28,000	60	300	4.7 U	4.2 U	4.4 U	**1.8 J**	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	**77 J**	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Toluene	µg/kg	410,000,000	650,000	410,000,000	42,000	12,000	29,000	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
trans-1,2-Dichloroethene	µg/kg	41,000,000	3,100,000	41,000,000	3,100,000	700	3,400	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
trans-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	*4.7 U*	*4.2 U*	*4.4 U*	*4.4 U*	*4.5 U*	*4.4 U*	*4.9 U*	*4.1 U*	*4.5 U*	*4.4 U*	*4.2 U*	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	4.0 U
Trichloroethene	µg/kg	520,000	8,900	1,200,000	12,000	60	300	4.7 U	**1.6 J**	**2.3 J**	**130**	**18**	**15**	**4.0 J**	**1.4 J**	**1.8 J**	**7.1**	**6.5**	**46 J**	*2,700 U*	*2,900 U*	*1,400 U*	**0.905 J**
Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	290 U	2,700 U	2,900 U	1,400 U	4.0 U
Vinyl chloride	µg/kg	7,900	1,100	170,000	1,100	10	70	4.7 U	4.2 U	4.4 U	4.4 U	4.5 U	4.4 U	4.9 U	4.1 U	4.5 U	4.4 U	4.2 U	*290 U*	*2,700 U*	*2,900 U*	*1,400 U*	**1.8 J**
Xylenes, Total	µg/kg	410,000,000	320,000	41,000,000	5,600	150,000	150,000	14 U	12 U	13 U	13 U	13 U	13 U	15 U	12 U	13 U	13 U	12 U	860 U	*8,100 U*	*8,800 U*	4,100 U	12 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits.
B - Analyte was detected in the associated method blank.
Bold - Indicates a detection of the noted compound.
E - Result exceeded calibration range.
Highlighted result is above one or more TACO screening standard.
Italicized - Indicates that the reporting limit is above one or more TACO screening standard.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
TACO - Tiered Approach to Corrective Action Objectives, 35 Illinois Administrative Code Part 742.
µg/kg - Micrograms per kilogram
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

Table 3
Soil Sample Results
Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Exposure Route-Specific Values for Soils: Industrial - Commercial: Ingestion µg/kg	Industrial - Commercial: Inhalation µg/kg	Construction Worker: Ingestion µg/kg	Construction Worker: Inhalation µg/kg	Soil Component of the Groundwater Ingestion Exposure Route Values: Class I µg/kg	Class II µg/kg	SB10-14	SB10-20	SB11-12	SB11-13	SB11-13 Duplicate	SB12-2	SB12-10	SB13A-13	SB13A-13 Duplicate	SB14-4	SB14-13	SB15-5	SB15-8	SB16-1	SB16-15
VOC (SW846 8260)								12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/7/2011	12/7/2011	12/6/2011	12/6/2011	12/7/2011	12/7/2011	12/7/2011	12/7/2011
1,1,1-Trichloroethane	µg/kg	--	1,200,000	--	1,200,000	2,000	9,600	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	**1.9 J**	**25**	**7.1**	**5,800**	**2.4 J**	4.6 U	4.5 U	**1.5 J**	4.4 U
1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
1,1,2-Trichloroethane	µg/kg	8,200,000	1,800,000	8,200,000	1,800,000	20	300	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	*230 U*	4.7 U	4.6 U	4.5 U	**4.5 J**	4.4 U
1,1-Dichloroethane	µg/kg	200,000,000	1,700,000	200,000,000	130,000	23,000	110,000	4.6 U	**1.0 J**	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	**1.2 J**	4.6 U	4.4 U
1,1-Dichloroethene	µg/kg	100,000,000	470,000	10,000,000	3,000	60	300	**2.0 J**	**8.2**	4.9 U	**1.1 J**	4.6 U	**0.88 J**	**5.1**	4.9 U	5.1 U	**150 J**	4.7 U	4.6 U	**9.1**	4.6 U	4.4 U
1,2,4-Trichlorobenzene	µg/kg	20,000,000	3,200,000	2,000,000	920,000	5,000	53,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	**0.98 J**
1,2-Dibromo-3-chloropropane	µg/kg	4,000	17,000	89,000	110	2	20	*4.6 U*	*4.5 U*	*4.9 U*	*4.6 U*	*4.6 U*	*4.3 U*	*4.4 U*	*4.9 U*	*5.1 U*	*230 U*	*4.7 U*	*4.6 U*	*4.5 U*	*4.6 U*	*4.4 U*
1,2-Dibromoethane (EDB)	µg/kg	2,900	120	62,000	160	0.4	4	*4.6 U*	*4.5 U*	*4.9 U*	*4.6 U*	*4.6 U*	*4.3 U*	*4.4 U*	*4.9 U*	*5.1 U*	*230 U*	*4.7 U*	*4.6 U*	*4.5 U*	*4.6 U*	*4.4 U*
1,2-Dichlorobenzene	µg/kg	180,000,000	560,000	18,000,000	310,000	17,000	43,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
1,2-Dichloroethane	µg/kg	63,000	700	1,400,000	990	20	100	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	**2.3 J**	5.1 U	**68 J**	4.7 U	4.6 U	4.5 U	**1.9 J**	4.4 U
1,2-Dichloropropane	µg/kg	84,000	23,000	1,800,000	500	30	150	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	*230 U*	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
1,4-Dichlorobenzene	µg/kg	--	17,000,000	--	340,000	2,000	11,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
2-Butanone (MEK)	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
2-Hexanone	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**0.94 J**	4.4 U
Acetone	µg/kg	--	100,000,000	--	100,000,000	25,000	25,000	19 U	18 U	20 U	18 U	18 U	17 U	18 U	20 U	20 U	910 U	19 U	18 U	18 U	**4.9 J**	18 U
Benzene	µg/kg	100,000	1,600	2,300,000	2,200	30	170	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	*230 U*	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Bromodichloromethane	µg/kg	92,000	3,000,000	2,000,000	3,000,000	600	600	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Bromoform	µg/kg	720,000	100,000	16,000,000	140,000	800	800	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Bromomethane	µg/kg	2,900,000	15,000	1,000,000	3,900	200	1,200	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	*230 U*	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Carbon disulfide	µg/kg	200,000,000	720,000	20,000,000	9,000	32,000	160,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Carbon tetrachloride	µg/kg	44,000	640,000	410,000	900	32,000	160,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Chlorobenzene	µg/kg	41,000,000	210,000	4,100,000	1,300	1,000	6,500	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Chloroethane	µg/kg	--	--	--	--	--	--	4.6 U/UJ*	4.5 U/UJ*	4.9 U/UJ*	4.6 U/UJ*	4.6 U/UJ*	4.3 U/UJ*	4.4 U/UJ*	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Chloroform	µg/kg	940,000	540	2,000,000	760	600	2,900	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**1.2 J**	4.4 U
Chloromethane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
cis-1,2-Dichloroethene	µg/kg	20,000,000	1,200,000	20,000,000	1,200,000	400	1,100	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**82**	4.4 U
cis-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	*4.6 U*	*4.5 U*	*4.9 U*	*4.6 U*	*4.6 U*	*4.3 U*	*4.4 U*	*4.9 U*	*5.1 U*	*230 U*	*4.7 U*	*4.6 U*	*4.5 U*	*4.6 U*	*4.4 U*
Cyclohexane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Dibromochloromethane	µg/kg	41,000,000	1,300,000	41,000,000	1,300,000	400	400	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**2.8 J**	4.4 U
Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Ethylbenzene	µg/kg	200,000,000	400,000	20,000,000	58,000	13,000	19,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Isopropylbenzene (Cumene)	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Methyl acetate	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Methyl-tert-butyl ether	µg/kg	20,000,000	8,800,000	2,000,000	140,000	320	320	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Methylcyclohexane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	**0.85 J**	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Methylene chloride	µg/kg	760,000	24,000	12,000,000	34,000	20	200	**1.7 JB**	**2.0 JB**	**2.3 JB**	**2.2 JB**	**2.4 JB**	**3.9 JB**	**2.2 JB**	**1.7 JB**	**1.5 JB**	*230 U*	**1.5 JB**	**1.5 JB**	**2.1 JB**	**0.65 JB**	**1.7 JB**
Styrene	µg/kg	410,000,000	1,500,000	41,000,000	430,000	4,000	18,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Tetrachloroethene	µg/kg	110,000	20,000	2,400,000	28,000	60	300	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	**6.6**	**1.1 J**	**3,200**	4.7 U	4.6 U	4.5 U	**2.1 J**	4.4 U
Toluene	µg/kg	410,000,000	650,000	410,000,000	42,000	12,000	29,000	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
trans-1,2-Dichloroethene	µg/kg	41,000,000	3,100,000	41,000,000	3,100,000	700	3,400	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**3.3 J**	4.4 U
trans-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	*4.6 U*	*4.5 U*	*4.9 U*	*4.6 U*	*4.6 U*	*4.3 U*	*4.4 U*	*4.9 U*	*5.1 U*	*230 U*	*4.7 U*	*4.6 U*	*4.5 U*	*4.6 U*	*4.4 U*
Trichloroethene	µg/kg	520,000	8,900	1,200,000	12,000	60	300	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	**1.3 J**	**1.1 J**	**3.9 J**	**0.82 J**	**520**	4.7 U	4.6 U	4.5 U	**250 E**	**18**
Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Vinyl chloride	µg/kg	7,900	1,100	170,000	1,100	10	70	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U	4.4 U	4.9 U	5.1 U	*230 U*	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U
Xylenes, Total	µg/kg	410,000,000	320,000	41,000,000	5,600	150,000	150,000	14 U	14 U	15 U	14 U	14 U	13 U	13 U	15 U	15 U	680 U	14 U	14 U	14 U	14 U	13 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits.
B - Analyte was detected in the associated method blank.
Bold - Indicates a detection of the noted compound.
E - Result exceeded calibration range.
Highlighted result is above one or more TACO screening standard.
Italicized - Indicates that the reporting limit is above one or more TACO screening standard
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
TACO - Tiered Approach to Corrective Action Objectives, 35 Illinois Administrative Code Part 742.
µg/kg - Micrograms per kilogram
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

Table 3
Soil Sample Results
Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Exposure Route-Specific Values for Soils				Soil Component of the Groundwater Ingestion Exposure Route Values																
		Industrial - Commercial		Construction Worker																		
		Ingestion µg/kg	Inhalation µg/kg	Ingestion µg/kg	Inhalation µg/kg	Class I µg/kg	Class II µg/kg	SB17-4	SB17-19	SB20-20	SB21-12	SB21-15	SB22-4	SB22-7	SB23-4	SB23-8	SB24-5	SB24-12	SB24-12 Duplicate	SB25-8	SB25-11	SB26-6	SB26-11
VOC (SW846 8260)								12/7/2011	12/7/2011	12/8/2011	12/21/2011	12/21/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/21/2011	12/21/2011	12/21/2011	12/21/2011
1,1,1-Trichloroethane	µg/kg	--	1,200,000	--	1,200,000	2,000	9,600	4.3 U	4.6 U	290 U	5.1	1.5 J	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,1,2-Trichloroethane	µg/kg	8,200,000	1,800,000	8,200,000	1,800,000	20	300	3.4 J	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,1-Dichloroethane	µg/kg	200,000,000	1,700,000	200,000,000	130,000	23,000	110,000	4.3 U	4.6 U	290 U	0.53 J	0.94 J	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	0.83 J	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,1-Dichloroethene	µg/kg	100,000,000	470,000	10,000,000	3,000	60	300	8.5	16	1,300	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,2,4-Trichlorobenzene	µg/kg	20,000,000	3,200,000	2,000,000	920,000	5,000	53,000	4.3 U	4.6 U	290 U*	1.0 J	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,2-Dibromo-3-chloropropane	µg/kg	4,000	17,000	89,000	110	2	20	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,2-Dibromoethane (EDB)	µg/kg	2,900	120	62,000	160	0.4	4	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,2-Dichlorobenzene	µg/kg	180,000,000	560,000	18,000,000	310,000	17,000	43,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,2-Dichloroethane	µg/kg	63,000	700	1,400,000	990	20	100	1.7 J	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,2-Dichloropropane	µg/kg	84,000	23,000	1,800,000	500	30	150	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
1,4-Dichlorobenzene	µg/kg	--	17,000,000	--	340,000	2,000	11,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
2-Butanone (MEK)	µg/kg	--	--	--	--	--	--	3.2 J	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
2-Hexanone	µg/kg	--	--	--	--	--	--	8.6	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	--	--	--	--	--	0.94 J	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Acetone	µg/kg	--	100,000,000	--	100,000,000	25,000	25,000	14 J	18 U	1200 U	17 U	19 U	19 U	17 U	19 U	17 U	19 U	17 U	18 U	19 U	17 U	19 U	17 U
Benzene	µg/kg	100,000	1,600	2,300,000	2,200	30	170	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Bromodichloromethane	µg/kg	92,000	3,000,000	2,000,000	3,000,000	600	600	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Bromoform	µg/kg	720,000	100,000	16,000,000	140,000	800	800	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Bromomethane	µg/kg	2,900,000	15,000	1,000,000	3,900	200	1,200	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Carbon disulfide	µg/kg	200,000,000	720,000	20,000,000	9,000	32,000	160,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Carbon tetrachloride	µg/kg	44,000	640,000	410,000	900	32,000	160,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Chlorobenzene	µg/kg	41,000,000	210,000	4,100,000	1,300	1,000	6,500	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Chloroethane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Chloroform	µg/kg	940,000	540	2,000,000	760	600	2,900	1.3 J	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Chloromethane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
cis-1,2-Dichloroethene	µg/kg	20,000,000	1,200,000	20,000,000	1,200,000	400	1,100	3,300 E	39	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
cis-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Cyclohexane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Dibromochloromethane	µg/kg	41,000,000	1,300,000	41,000,000	1,300,000	400	400	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Ethylbenzene	µg/kg	200,000,000	400,000	20,000,000	58,000	13,000	19,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Isopropylbenzene (Cumene)	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Methyl acetate	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Methyl-tert-butyl ether	µg/kg	20,000,000	8,800,000	2,000,000	140,000	320	320	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Methylcyclohexane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Methylene chloride	µg/kg	760,000	24,000	12,000,000	34,000	20	200	1.3 JB	2.7 JB	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Styrene	µg/kg	410,000,000	1,500,000	41,000,000	430,000	4,000	18,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Tetrachloroethene	µg/kg	110,000	20,000	2,400,000	28,000	60	300	4.3 U	4.6 U	290 U	0.57 J	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Toluene	µg/kg	410,000,000	650,000	410,000,000	42,000	12,000	29,000	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
trans-1,2-Dichloroethene	µg/kg	41,000,000	3,100,000	41,000,000	3,100,000	700	3,400	350 E	1.1 J	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
trans-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Trichloroethene	µg/kg	520,000	8,900	1,200,000	12,000	60	300	4.4	48	290 U	3.4 J	0.68 J	4.7 U	4.4 U	6.3	0.59 J	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	4.3 U	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Vinyl chloride	µg/kg	7,900	1,100	170,000	1,100	10	70	11	4.6 U	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U	4.3 U	4.8 U	4.3 U
Xylenes, Total	µg/kg	410,000,000	320,000	41,000,000	5,600	150,000	150,000	13 U	14 U	880 U	13 U	14 U	14 U	13 U	15 U	13 U	14 U	13 U	14 U	14 U	13 U	14 U	13 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits.
B - Analyte was detected in the associated method blank.
Bold - Indicates a detection of the noted compound.
E - Result exceeded calibration range.
Highlighted result is above one or more TACO screening standard.
Italicized - Indicates that the reporting limit is above one or more TACO screening standard
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
TACO - Tiered Approach to Corrective Action Objectives, 35 Illinois Administrative Code Part 742.
µg/kg - Micrograms per kilogram
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

Table 3
Soil Sample Results
Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Exposure Route-Specific Values for Soils				Soil Component of the Groundwater Ingestion Exposure Route Values														
		Industrial - Commercial		Construction Worker																
		Ingestion µg/kg	Inhalation µg/kg	Ingestion µg/kg	Inhalation µg/kg	Class I µg/kg	Class II µg/kg	SB28-28	SB29-42	SB31-10	SB32-32	SB33-5	SB33-5 Duplicate	SB33-9	SB34-20	BG01-5	BG01-8	BG01-8 Duplicate	BG02-4.5	BG02-8
VOC (SW846 8260)								12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/30/2011	12/28/2011	12/28/2011	12/28/2011	12/28/2011	12/28/2011
1,1,1-Trichloroethane	µg/kg	--	1,200,000	--	1,200,000	2,000	9,600	**13**	**0.94 J**	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1,2,2-Tetrachloroethane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1,2-Trichloroethane	µg/kg	8,200,000	1,800,000	8,200,000	1,800,000	20	300	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1-Dichloroethane	µg/kg	200,000,000	1,700,000	200,000,000	130,000	23,000	110,000	5.8 U	6.4 U	5.7 U	5.1 U	**1.5 J**	**1.6 J**	5.3 U	**60**	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1-Dichloroethene	µg/kg	100,000,000	470,000	10,000,000	3,000	60	300	5.8 U	6.4 U	5.7 U	**1.9 J**	5.4 U	5.8 U	5.3 U	**4.8 J**	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2,4-Trichlorobenzene	µg/kg	20,000,000	3,200,000	2,000,000	920,000	5,000	53,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dibromo-3-chloropropane	µg/kg	4,000	17,000	89,000	110	2	20	*5.8 U*	*6.4 U*	*5.7 U*	*5.1 U*	*5.4 U*	*5.8 U*	*5.3 U*	*5.4 U*	*6.1 U*	*5.8 U*	*6.0 U*	*5.8 U*	*5.9 U*
1,2-Dibromoethane (EDB)	µg/kg	2,900	120	62,000	160	0.4	4	*5.8 U*	*6.4 U*	*5.7 U*	*5.1 U*	*5.4 U*	*5.8 U*	*5.3 U*	*5.4 U*	*6.1 U*	*5.8 U*	*6.0 U*	*5.8 U*	*5.9 U*
1,2-Dichlorobenzene	µg/kg	180,000,000	560,000	18,000,000	310,000	17,000	43,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dichloroethane	µg/kg	63,000	700	1,400,000	990	20	100	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dichloropropane	µg/kg	84,000	23,000	1,800,000	500	30	150	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,3-Dichlorobenzene	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,4-Dichlorobenzene	µg/kg	--	17,000,000	--	340,000	2,000	11,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
2-Butanone (MEK)	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
2-Hexanone	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Acetone	µg/kg	--	100,000,000	--	100,000,000	25,000	25,000	23 U	25 U	23 U	20 U	22 U	23 U	21 U	22 U	24 U	23 U	24 U	23 U	23 U
Benzene	µg/kg	100,000	1,600	2,300,000	2,200	30	170	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Bromodichloromethane	µg/kg	92,000	3,000,000	2,000,000	3,000,000	600	600	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Bromoform	µg/kg	720,000	100,000	16,000,000	140,000	800	800	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Bromomethane	µg/kg	2,900,000	15,000	1,000,000	3,900	200	1,200	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Carbon disulfide	µg/kg	200,000,000	720,000	20,000,000	9,000	32,000	160,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Carbon tetrachloride	µg/kg	44,000	640,000	410,000	900	32,000	160,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chlorobenzene	µg/kg	41,000,000	210,000	4,100,000	1,300	1,000	6,500	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chloroethane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	**2.6 J**	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chloroform	µg/kg	940,000	540	2,000,000	760	600	2,900	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chloromethane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
cis-1,2-Dichloroethene	µg/kg	20,000,000	1,200,000	20,000,000	1,200,000	400	1,100	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
cis-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	*5.8 U*	*6.4 U*	*5.7 U*	*5.1 U*	*5.4 U*	*5.8 U*	*5.3 U*	*5.4 U*	*6.1 U*	*5.8 U*	*6.0 U*	*5.8 U*	*5.9 U*
Cyclohexane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Dibromochloromethane	µg/kg	41,000,000	1,300,000	41,000,000	1,300,000	400	400	5.8 U/UJ*	6.4 U/UJ*	5.7 U/UJ*	5.1 U/UJ*	5.4 U/UJ*	5.8 U/UJ*	5.3 U/UJ*	5.4 U/UJ*	6.1 U/UJ*	5.8 U/UJ*	6.0 U/UJ*	5.8 U/UJ*	5.9 U/UJ*
Dichlorodifluoromethane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Ethylbenzene	µg/kg	200,000,000	400,000	20,000,000	58,000	13,000	19,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Isopropylbenzene (Cumene)	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methyl acetate	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methyl-tert-butyl ether	µg/kg	20,000,000	8,800,000	2,000,000	140,000	320	320	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methylcyclohexane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methylene chloride	µg/kg	760,000	24,000	12,000,000	34,000	20	200	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Styrene	µg/kg	410,000,000	1,500,000	41,000,000	430,000	4,000	18,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Tetrachloroethene	µg/kg	110,000	20,000	2,400,000	28,000	60	300	**1.2 J**	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Toluene	µg/kg	410,000,000	650,000	410,000,000	42,000	12,000	29,000	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
trans-1,2-Dichloroethene	µg/kg	41,000,000	3,100,000	41,000,000	3,100,000	700	3,400	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
trans-1,3-Dichloropropene	µg/kg	57,000	2,100	1,200,000	390	4	20	*5.8 U*	*6.4 U*	*5.7 U*	*5.1 U*	*5.4 U*	*5.8 U*	*5.3 U*	*5.4 U*	*6.1 U*	*5.8 U*	*6.0 U*	*5.8 U*	*5.9 U*
Trichloroethene	µg/kg	520,000	8,900	1,200,000	12,000	60	300	5.8 U	6.4 U	5.7 U	**1.1 J**	**4.0 J**	**3.1 J**	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Trichlorofluoromethane	µg/kg	--	--	--	--	--	--	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Vinyl chloride	µg/kg	7,900	1,100	170,000	1,100	10	70	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Xylenes, Total	µg/kg	410,000,000	320,000	41,000,000	5,600	150,000	150,000	17 U	19 U	17 U	15 U	16 U	18 U	16 U	16 U	18 U	18 U	18 U	17 U	18 U

Notes:

-- - Indicates there is no established screening criteria for this compound

* - Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits

B - Analyte was detected in the associated method blank.

Bold - Indicates a detection of the noted compound.

E - Result exceeded calibration range

Highlighted result is above one or more TACO screening standard.

Italicized - Indicates that the reporting limit is above one or more TACO screening standard

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

TACO - Tiered Approach to Corrective Action Objectives, 35 Illinois Administrative Code Part 742.

µg/kg - Micrograms per kilogram

U - Compound not detected

UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value

VOCs - Volatile organic compounds

Table 6
Grab Groundwater Sample Results
Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	SB15-12 12/7/2011	SB17-24 12/7/2011	SB21-20 12/19/2011	SB21-20 Duplicate 12/19/2011	SB22-9 12/9/2011	SB23-11 12/20/2011	SB24-15 12/20/2011	SB26-14 12/28/2011	SB-35-20 2/14/2012	SB39-12 2/14/2012	SB40-12 2/14/2012	SB40-12 Duplicate 2/14/2012	SB41-15 2/15/2012	SB42-15 2/15/2012	SB43-24 2/15/2012	SB44-24 2/15/2012
VOCs (SW846 8260B)																		
1,1,1-Trichloroethane	µg/l	200	31	2.8 J	190	170	5.0 U	5.0 U	5.0 U	5.0 U	850	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	11
1,1,2,2-Tetrachloroethane	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U/UJ*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	360	2.3 J	75	68	5.0 U	5.0 U	50	5.0 U	67	5.0 U	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U	4.4 J
1,1-Dichloroethene	µg/l	7	66	2.4 J	110	110	5.0 U	5.0 U	1.3 J	5.0 U	690	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15
1,2,4-Trichlorobenzene	µg/l	70	10 U	5.0 U	0.50 J	2.0 J	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	µg/l	0.05	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/l	600	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	2.2 J	5.0 U	1.6 J	1.7 J	5.0 U	5.0 U	5.0 U	5.0 U	13 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	6,300	40 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	µg/l	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/l	1	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U/UJ*	5.0 U	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*
Carbon disulfide	µg/l	700	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	100	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	68	5.0 U	3.6 J	3.5 J	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U/UJ*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	0.2	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	10 U	150	26	24	5.0 U	5.0 U	19	5.0 U	14 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/l	1	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/l	140	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	13	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	700	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/l	5	3.9 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/l	100	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	10 U	5.0 U	5.0	4.9 J	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/l	1,000	10 U	1.9 J	5.0 U	5.0 U	5.0 U	5.0 U	2.2 J	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	10 U	4.1 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U/UJ*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/l	5	1.8 J	130	36	34	5.0 U	5.0 U	9.4	5.0 U	170	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.5
Trichlorofluoromethane	µg/l	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/l	2	10 U	20	7.3	6.5	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes, Total	µg/l	10,000	30 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	150 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
B - Compound was found in the blank and sample.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
µg/l - Micrograms per liter
U - Compound not detected
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

Table 6
Grab Groundwater Sample Results
Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	SB-45-18	SB46-18	SB47-11	SB48-15.5	SB49-24	SB50-17	SB51-16	SB51-16 Duplicate	MW10 (5-9)	MW10 (9-14)	MW10 (69-74)	MW10 (89-94)	MW10 (99-104)
			8/2/2012	8/2/2012	8/2/2012	8/2/2012	8/3/2012	8/3/2012	8/3/2012	8/3/2012	10/30/2012	11/1/2012	10/31/2012	10/31/2012	10/31/2012
VOCs (SW846 8260B)															
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**11**	*500 U*	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**6.8**	5.0 U	5.0 U	**22**	500 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/l	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/l	70	**7.8 B***	5.0 U/UJ*	**1.1 JB***	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	**0.55 JB***	**0.45 JB***	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U/UJ*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	6,300	20 U	20 U/UJ*	20 U	20 U	20 U	20 U	20 U	20 U	20 U	2000 U*/UJ	20 U	20 U	20 U
Benzene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromomethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.91 J**	**440 J**	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
Chloromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	**38**	5.0 U	5.0 U	5.0 U	5.0 U	**3.7 J**	5.0 U	5.0 U	**62**	**22000**	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
Cyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/l	140	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Styrene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*500 U*	5.0 U	5.0 U	5.0 U
Toluene	µg/l	1,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	500 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	**0.98 J**	5.0 U	5.0 U	5.0 U	5.0 U	**1.0 J**	5.0 U	5.0 U	5.0 U	**180 J**	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*500 U*	*5.0 U*	*5.0 U*	*5.0 U*
Trichloroethene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**4.1 J**	5.0 U	5.0 U	**13**	**2200**	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	µg/l	--	5.0 U/UJ*	5.0 U	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U	500 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	**7.9**	**1200**	5.0 U	5.0 U	5.0 U
Xylenes, Total	µg/l	10,000	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	1500 U	15 U	15 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
B - Compound was found in the blank and sample.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendi
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
J - Estimated concentration above the adjusted method detection limit and below th
µg/l - Micrograms per liter
U - Compound not detected
UJ - Indicates the compound or analyte was analyzed for but not detected. The sa
VOCs - Volatile organic compounds

Table 7
Soil Gas Sample Results
GE Morrison Facility
Morrison, IL

Compound	Units	Residential Air (ug/m³)	Industrial Air (ug/m³)	SG1-5	SG1-12	SG2-5	SG2-13	SG3-5	SG3-13	SG4-5	SG4-5 Duplicate	SG4-13	SG5-5	SG5-10
VOC (TO15)				12/21/2011	12/21/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011
1,1,1-Trichloroethane	ug/m^3	5,200	22,000	**410,000**	**71,000**	63	6.7	550	5.3	1.1	1.6	44	**25,000**	**52,000**
1,1,2,2-Tetrachloroethane	ug/m^3	0.042	0.21	*4000 U*	*680 U*	*1.4 U*	*1.4 U*	*19 U*	*2.4 U*	*1.4 U*	*1.4 U*	*6.1 U*	*510 U*	*1,100 U*
1,1,2-Trichloroethane	ug/m^3	0.15	0.77	*3200 U*	*540 U*	*1.1 U*	*1.1 U*	*15 U*	*1.9 U*	*1.1 U*	*1.1 U*	*4.8 U*	*410 U*	*860 U*
1,1-Dichloroethane	ug/m^3	1.5	7.7	*2300 U*	**1,100**	**2.8**	0.81 U	**42**	**9.8**	0.81 U	0.81 U	**510**	*300 U*	*640 U*
1,1-Dichloroethene	ug/m^3	210	880	**8,900**	**5,500**	1.1	0.79 U	11 U	1.7	0.79 U	0.79 U	**500**	**32,000**	**54,000**
1,2-Dichloroethane	ug/m^3	0.094	0.47	*3300 U*	*400 U*	*0.81 U*	*0.81 U*	*11 U*	*1.4 U*	*0.81 U*	*0.81 U*	*3.6 U*	*300 U*	*640 U*
Carbon tetrachloride	ug/m^3	0.41	2	*3600 U*	*630 U*	*1.3 U*	*1.3 U*	*18 U*	*2.2 U*	*1.3 U*	*1.3 U*	*5.6 U*	*470 U*	*990 U*
Chloroform	ug/m^3	0.11	0.53	*2800 U*	*490 U*	**7.7**	*0.98 U*	**23**	*1.7 U*	*0.98 U*	*0.98 U*	*4.3 U*	*360 U*	*770 U*
cis-1,2-Dichloroethene	ug/m^3	--	--	2300 U	390 U	0.79 U	0.79 U	120	22	0.79 U	0.79 U	3.5 U	300 U	620 U
Methylene chloride	ug/m^3	5.2	26	*5000 U*	*860 U*	1.7 U	1.7 U	*24 U*	3.0 U	1.7 U	1.7 U	*7.7 U*	*650 U*	*1,400 U*
Tetrachloroethene	ug/m^3	0.41	2.1	**7,100**	*680 U*	*1.4 U*	*1.4 U*	*19 U*	**2.6**	*1.4 U*	*1.4 U*	*6.0 U*	*510 U*	*1,100 U*
trans-1,2-Dichloroethene	ug/m^3	63	260	*2300 U*	*390 U*	0.79 U	0.79 U	30	1.4 U	0.79 U	0.79 U	3.5 U	*300 U*	*620 U*
Trichloroethene	ug/m^3	0.43	3.0	**6,400**	**2,500**	**70**	*1.1 U*	**2,000**	**11**	*1.1 U*	*1.1 U*	*4.8 U*	**940**	**3,000**
Vinyl chloride	ug/m^3	0.16	2.8	*1500 U*	*250 U*	*0.51 U*	*0.51 U*	*7.2 U*	*0.89 U*	*0.51 U*	*0.51 U*	*2.3 U*	*190 U*	*400 U*

Notes:

Bold - Indicates a detection of the noted compound.

Highlighted result is above one or more screening criteria.

Italicized - Indicates that the reporting limit is above one or more screening criteria.

ug/m^3 - Micrograms per cubic meter

U - Compound is not detected.

VOC - Volatile organic compounds

Table 7
Soil Gas Sample Results
GE Morrison Facility
Morrison, IL

Compound	Units	Residential Air (ug/m³)	Industrial Air (ug/m³)	SG6-5	SG6-10	SG7-5	SG7-10	SG8-5	SG8-10	SG8-10 Duplicate	SG9-5	SG10-5	SG11-5	SG12-5	SG12-5 Duplicate	SG13-5	Trip Blank
VOC (TO15)				12/22/2011	12/22/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/28/2011	12/28/2011	12/28/2011	12/28/2011	12/28/2011
1,1,1-Trichloroethane	ug/m^3	5,200	22,000	14,000	19,000	310	4,400	3.1	130	160	1.2	1.1 U	1.5	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2,2-Tetrachloroethane	ug/m^3	0.042	0.21	470 U	500 U	11 U	240 U	1.4 U	5.0 U	2.7 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/m^3	0.15	0.77	370 U	400 U	8.7 U	190 U	1.1 U	4.0 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/m^3	1.5	7.7	280 U	290 U	6.5 U	880	0.81 U	170	200	38	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	ug/m^3	210	880	27,000	43,000	690	26,000	0.79 U	240	260	14	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	ug/m^3	0.094	0.47	280 U	290 U	6.5 U	140 U	0.81 U	2.9 U	1.6 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Carbon tetrachloride	ug/m^3	0.41	2	430 U	460 U	10 U	220 U	1.3 U	4.6 U	2.5 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Chloroform	ug/m^3	0.11	0.53	330 U	350 U	7.8 U	170 U	0.98 U	6.2	6.1	2.2	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
cis-1,2-Dichloroethene	ug/m^3	--	--	270 U	290 U	7.8	140 U	0.79 U	150	160	32	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Methylene chloride	ug/m^3	5.2	26	590 U	630 U	14 U	310 U	1.7 U	6.3 U	3.5 U	3.5	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Tetrachloroethene	ug/m^3	0.41	2.1	460 U	490 U	11 U	240 U	1.4 U	4.9 U	2.7 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
trans-1,2-Dichloroethene	ug/m^3	63	260	270 U	290 U	6.3 U	140 U	0.79 U	19	20	2.5	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Trichloroethene	ug/m^3	0.43	3.0	470	740	120	190	1.1 U	100	80	72	1.1 U	1.1	1.2	1.2	1.1 U	1.1 U
Vinyl chloride	ug/m^3	0.16	2.8	170 U	190 U	4.1 U	90 U	0.51 U	1.9 U	1.0 U	48	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U

Notes:

Bold - Indicates a detection of the noted compound.

Highlighted result is above one or more screening criteria.

Italicized - Indicates that the reporting limit is above one or more screening criteria.

ug/m^3 - Micrograms per cubic meter

U - Compound is not detected.

VOC - Volatile organic compounds

Table 8A
Groundwater Elevation Data - January 2012
GE Morrison Facility
Morrison, Illinois

Monitoring Well	Screened Interval (feet bgs)	Measured Top of Casing Elevation	Depth to Water Below Top of Casing (feet)	Groundwater Elevation
MW1-LD	259-269	639.91	15.58	624.33
MW2-UD	52-62	642.82	17.00	625.82
MW3-UD	92-102	624.34	0.50	623.84
MW4-LS	83.5-93.5	626.61	3.46	623.15
MW4-UD	86-91	635.17	10.01	625.16
MW5-LS	73-83	623.35	0.00*	623.35*
MW7-LS	90-100	625.73	2.61	623.12
MW8-LS	86-96	625.34	2.27	623.07
G101D	223-239	626.10	3.16	622.94
G104S	7.2-17.7	626.90	7.82	619.08
G104D	33-49	626.90	6.81	620.09
G105S	8-24	636.91	12.40	624.51
G105D	32.2-48.1	644.39	19.74	624.65

Notes:
bgs - below ground surface
Elevations reported in feet above mean sea level.
Groundwater level measurements collected on January 12, 2012.
*Well is artesian, water flows out of well when cap is removed.

Table 8B
Groundwater Elevation Data - August 2012
GE Morrison Facility
Morrison, Illinois

Monitoring Well	Screened Interval (feet bgs)	Measured Top of Casing Elevation	Depth to Water Below Top of Casing (feet)	Groundwater Elevation
MW1-LD	259-269	639.91	18.47	621.44
MW2-UD	52-62	642.82	18.69	624.13
MW3-UD	92-102	624.34	NM	NM
MW4-LS	83.5-93.5	626.61	5.40	621.21
MW4-UD	86-91	635.17	12.23	622.94
MW5-LS	73-83	623.35	1.71	621.64
MW7-LS	90-100	625.73	4.64	621.09
MW8-LS	86-96	625.34	4.33	621.01
MW9	10-20	626.02	10.05	615.97
G101D	223-239	626.10	5.00	621.10
G104S	7.2-17.7	626.90	9.25	617.65
G104D	33-49	626.90	8.32	618.58
G105S	8-24	636.91	15.31	621.60
G105D	32.2-48.1	644.39	22.56	621.83

Notes:
bgs - below ground surface
Elevations reported in feet above mean sea level.
Groundwater level measurements collected on August 8, 2012.
NM - Water level could not be collected because the well casing is damaged.

Table 9A
Groundwater Sample Results - January 2012
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW1-LD-2012	GW-DUP02-2012 (Duplicate of GW-MW1-LD-2012)	GW-MW2-UD-2012	GW-MW3-UD-2012	GW-MW4-LS-2012	GW-DUP01-2012 (Duplicate of GW-MW4-LS-2012)	GW-MW4-UD-2012	GW-MW5-LS-2012
VOCs (SW846 8260B)			1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	**1.7 J**	**1.8 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/l	7	**2.7 J**	**2.9 J**	5.0 U	**1.1 J**	**3.3 J**	**3.5 J**	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/l	70	5.0 U/UJ*	5.0 U	5.0 U/UJ*	5.0 U/UJ*	5.0 U	5.0 U	5.0 U/UJ*	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	6,300	20 U	20 U	20 U	20 U	20 U	20 U	**6.9 J**	20 U
Benzene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromomethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Chloromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	5.0 U	5.0 U	5.0 U	5.0 U	**1.4 J**	**1.3 J**	**0.95 J**	5.0 U
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Cyclohexane	µg/l	--	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*
Dibromochloromethane	µg/l	140	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	5.0 U	5.0 U	**2 J**	**9.9**	**7.1**	**7.6**	5.0 U	5.0 U
Toluene	µg/l	1,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Trichloroethene	µg/l	5	**4.4 J**	**5.6**	5.0 U	**3.7 J**	**140**	**140**	5.0 U	5.0 U
Trichlorofluoromethane	µg/l	--	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Xylenes, Total	µg/l	10,000	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
Italicized - Indicates that the reporting limit is above Class I groundwater standard
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
µg/l - Micrograms per liter
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

Document 10 – Part 4

Expert Report of Konrad J. Banaszak, Genesis Engineering & Development, dated 11/13/2014

Table 9A
Groundwater Sample Results - January 2012
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW7-LS-2012	GW-MW8-LS-2012	GW-G101D-2012	GW-G104S-2012	GW-G104D-2012	GW-G105S-2012	GW-G105D-2012
VOCs (SW846 8260B)			1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012	1/26/2012
1,1,1-Trichloroethane	µg/l	200	**56**	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	**8.4 J**	**71 J**	5.0 U	5.0 U	5.0 U	**1.5 J**	**15**
1,1-Dichloroethene	µg/l	7	**83**	**150**	5.0 U	5.0 U	5.0 U	5.0 U	**9**
1,2,4-Trichlorobenzene	µg/l	70	25 U	*130 U*	5.0 U	5.0 U/UJ*	5.0 U	5.0 U	5.0 U/UJ*
1,2-Dibromo-3-chloropropane	µg/l	0.2	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	**2.0 J**
1,2-Dichloropropane	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	25 U	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	25 U	130 U	5.0 U	5.0 U/UJ*	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	6,300	100 U	500 U	20 U	20 U/UJ*	20 U	20 U	**5.9 J**
Benzene	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromoform	µg/l	1	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromomethane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/l	700	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	100	25 U	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	0.2	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Chloromethane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	**4.0 J**	**42 J**	**2.8 J**	5.0 U	5.0 U	5.0 U	**2.4 J**
cis-1,3-Dichloropropene	µg/l	1	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Cyclohexane	µg/l	--	25 U/UJ*	130 U/UJ*	5.0 U/UJ*	5.0 U	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*
Dibromochloromethane	µg/l	140	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	700	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	25 U	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/l	100	25 U	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	*25 U*	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/l	1,000	25 U	130 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	25 U	*130 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Trichloroethene	µg/l	5	**480**	**4,800**	5.0 U	5.0 U	5.0 U	5.0 U	**2.6 J**
Trichlorofluoromethane	µg/l	--	25 U/UJ*	130 U/UJ*	5.0 U/UJ*	5.0 U	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*
Vinyl chloride	µg/l	2	*25 U*	*130 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	**2.8 J**
Xylenes, Total	µg/l	10,000	75 U	380 U	15 U	15 U	15 U	15 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appen
Italicized - Indicates that the reporting limit is above Class I groundwater standa
J - Estimated concentration above the adjusted method detection limit and below
µg/l - Micrograms per liter
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The s
VOCs - Volatile organic compounds

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P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.7 Focused Site Investigation Report\Tables\Table 9A_MW Results\Table 9A-MW VOC Results_Jan12

Table 9B
Groundwater Sample Results - August 2012
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW1-LD-2012A	GW-MW2-UD-2012A	GW-MW4-LS-2012A	GW-MW4-UD-2012A	GW-MW5-LS-2012A	GW-MW7-LS-2012A	GW-MW8-LS-2012A	GW-DUP02-2012A (Duplicate of GW-MW8-LS-2012A)
VOCs (SW846 8260B)			8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U	**3.0 J**	5.0 U	5.0 U	**220**	130 U	**11**
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	**0.39 J**
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
1,1-Dichloroethane	µg/l	700	**1.3 J**	5.0 U	5.0 U	5.0 U	5.0 U	130 U	**42 J**	**48 J**
1,1-Dichloroethene	µg/l	7	**1.8 J**	5.0 U	**2.0 J**	**1.3 J**	5.0 U	**200**	**120 J**	**140**
1,2,4-Trichlorobenzene	µg/l	70	**1.1 J**	5.0 U/UJ*	5.0 U/UJ*	5.0 U	5.0 U/UJ*	*130 U/UJ**	*130 U/UJ**	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	**2.4 J**
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Acetone	µg/l	6,300	20 U	**7.8 J**	**6.1 J**	**5.6 J**	**8.3 J**	500 U	500 U	20 U
Benzene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
Bromomethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Carbon disulfide	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
Chlorobenzene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
Chloromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	5.0 U	5.0 U	**1.1 J**	**0.71 J**	5.0 U	*130 U*	**1,400**	**1,500**
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
Cyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Dibromochloromethane	µg/l	140	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Methyl acetate	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Methylene chloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	**35 J**	5.0 U
Styrene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	5.0 U
Tetrachloroethene	µg/l	5	5.0 U	5.0 U	**6.2**	5.0 U	5.0 U	*130 U*	*130 U*	**1.0 J**
Toluene	µg/l	1,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	*130 U*	*130 U*	**3.9 J**
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
Trichloroethene	µg/l	5	**3.8 J**	5.0 U	**130**	**0.80 J**	**0.98 J**	**2,700**	**2,000**	**2,200**
Trichlorofluoromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	5.0 U
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*130 U*	*130 U*	*5.0 U*
Xylenes, Total	µg/l	10,000	15 U	15 U	15 U	15 U	15 U	380 U	380 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E
Italicized - Indicates that the reporting limit is above Class I groundwater standard
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
µg/l - Micrograms per liter
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

Table 9B
Groundwater Sample Results - August 2012
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW9-2012A	GW-G101D-2012A	GW-G104S-2012A	GW-G104D-2012A	GW-G105S-2012A	GW-G105D-2012A	GW-DUP01-2012A (Duplicate of GW-G105D-2012A)
VOCs (SW846 8260B)			8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**59**	**48**
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.63 J**	**0.57 J**
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	**1.1 J**	**42**	**37**
1,1-Dichloroethene	µg/l	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**170**	**140**
1,2,4-Trichlorobenzene	µg/l	70	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U/UJ*	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**4.0 J**	**4.0 J**
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	6,300	20 U	20 U	**5.2 J**	**8.7 J**	**6.7 J**	**7.7 J**	**8.1 J**
Benzene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromomethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Chloromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	4.4 J	5.0 U	5.0 U	5.0 U	5.0 U	**15**	**13**
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Cyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**3.1 J**	**0.79 J**
Dibromochloromethane	µg/l	140	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/l	1,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*
Trichloroethene	µg/l	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**51**	**49**
Trichlorofluoromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	**9.8**	**7.3**
Xylenes, Total	µg/l	10,000	15 U	15 U	15 U	15 U	15 U	15 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appen
Italicized - Indicates that the reporting limit is above Class I groundwater standa
J - Estimated concentration above the adjusted method detection limit and below
µg/l - Micrograms per liter
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The s
VOCs - Volatile organic compounds

Table 9C
Groundwater Sample Results - November 2012
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW10-2012B	GW-DUP03-2012B (Duplicate of GW-MW10-2012B)
VOCs (SW846 8260B)			11/2/2012	11/2/2012
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	5.0 U	5.0 U
1,1-Dichloroethene	µg/l	7	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/l	70	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U
Acetone	µg/l	6,300	20 U	20 U
Benzene	µg/l	5	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*
Bromomethane	µg/l	--	5.0 U*	5.0 U*
Carbon disulfide	µg/l	700	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U
Chlorobenzene	µg/l	100	5.0 U	5.0 U
Chloroethane	µg/l	--	5.0 U*	5.0 U*
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*
Chloromethane	µg/l	--	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*
Cyclohexane	µg/l	--	5.0 U	5.0 U
Dibromochloromethane	µg/l	140	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U
Methyl acetate	µg/l	--	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	5.0 U*	5.0 U*
Methylcyclohexane	µg/l	--	5.0 U	5.0 U
Methylene chloride	µg/l	5	5.0 U*	5.0 U*
Styrene	µg/l	100	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	5.0 U	5.0 U
Toluene	µg/l	1,000	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*
Trichloroethene	µg/l	5	5.0 U	5.0 U
Trichlorofluoromethane	µg/l	--	5.0 U*	5.0 U*
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*
Xylenes, Total	µg/l	10,000	15 U	15 U

Notes:

-- - Indicates there is no established screening criteria for this compound.

* - LCS or LCSD exceeds the control limits.

Bold - Indicates a detection of the noted compound.

IEPA - Illinois Environmental Protection Agency

Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.

Italicized - Indicates that the reporting limit is above Class I groundwater standard.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

µg/l - Micrograms per liter

U - Compound not detected.

VOCs - Volatile organic compounds

Table 10
Groundwater Sample Results
Golf Course Irrigation Wells
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-N.WELL-2012	GW-DUP01-2012 (Duplicate of GW-N.WELL-2012)	GW-S.WELL-2012
VOCs (SW846 8260B)			8/8/2012	8/8/2012	8/8/2012
1,1,1-Trichloroethane	µg/l	200	**510**	**620**	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	500 U	500 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	500 U	500 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	*500 U*	*500 U*	5.0 U
1,1-Dichloroethane	µg/l	700	500 U	500 U	5.0 U
1,1-Dichloroethene	µg/l	7	**740**	**850**	5.0 U
1,2,4-Trichlorobenzene	µg/l	70	*500 U/UJ**	*500 U/UJ**	5.0 U/UJ*
1,2-Dibromo-3-chloropropane	µg/l	0.2	*500 U*	*500 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*500 U*	*500 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	500 U	500 U	5.0 U
1,2-Dichloroethane	µg/l	5	*500 U*	*500 U*	5.0 U
1,2-Dichloropropane	µg/l	5	*500 U*	*500 U*	5.0 U
1,3-Dichlorobenzene	µg/l	--	500 U	500 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	*500 U*	*500 U*	5.0 U
2-Butanone (MEK)	µg/l	--	500 U	500 U	5.0 U
2-Hexanone	µg/l	--	500 U/UJ*	500 U/UJ*	5.0 U/UJ*
4-Methyl-2-Pentanone (MIBK)	µg/l	--	500 U	500 U	5.0 U
Acetone	µg/l	6,300	2,000 U/UJ*	2,000 U/UJ*	20 U/UJ*
Benzene	µg/l	5	*500 U*	*500 U*	5.0 U
Bromodichloromethane	µg/l	0.2	*500 U*	*500 U*	*5.0 U*
Bromoform	µg/l	1	*500 U*	*500 U*	*5.0 U*
Bromomethane	µg/l	--	500 U	500 U	5.0 U
Carbon disulfide	µg/l	700	500 U	500 U	5.0 U
Carbon tetrachloride	µg/l	5	*500 U*	*500 U*	5.0 U
Chlorobenzene	µg/l	100	*500 U*	*500 U*	5.0 U
Chloroethane	µg/l	--	500 U	500 U	5.0 U
Chloroform	µg/l	0.2	*500 U*	*500 U*	*5.0 U*
Chloromethane	µg/l	--	500 U	500 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	**110 J**	**120 J**	5.0 U
cis-1,3-Dichloropropene	µg/l	1	*500 U*	*500 U*	*5.0 U*
Cyclohexane	µg/l	--	500 U	500 U	5.0 U
Dibromochloromethane	µg/l	140	*500 U*	*500 U*	5.0 U
Dichlorodifluoromethane	µg/l	--	500 U	500 U	5.0 U
Ethylbenzene	µg/l	700	500 U	500 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	500 U	500 U	5.0 U
Methyl acetate	µg/l	--	500 U	500 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	*500 U*	*500 U*	5.0 U
Methylcyclohexane	µg/l	--	500 U	500 U	5.0 U
Methylene chloride	µg/l	5	*500 U*	*500 U*	5.0 U
Styrene	µg/l	100	*500 U*	*500 U*	5.0 U
Tetrachloroethene	µg/l	5	*500 U*	*500 U*	5.0 U
Toluene	µg/l	1,000	500 U	500 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	*500 U*	*500 U*	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*500 U*	*500 U*	*5.0 U*
Trichloroethene	µg/l	5	**5,000**	**6,100**	**0.93 J**
Trichlorofluoromethane	µg/l	--	500 U	500 U	5.0 U
Vinyl chloride	µg/l	2	*500 U*	*500 U*	*5.0 U*
Xylenes, Total	µg/l	10,000	1,500 U	1,500 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
* - LCS or LCSD exceeds the control limits.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
µg/l - Micrograms per liter
U - Compound not detected.
UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
VOCs - Volatile organic compounds

JEF/DEN/dpp
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.7 Focused Site Investigation Report\Tables\Table 10_Golf Course Results\Table 10-GC VOC Results_Aug12

Table 11
Surface Water Sample Results
Golf Course Ponds
Morrison, Illinois

Compound	IEPA Derived Water Quality Criteria				SW-N.POND-2012	SW-DUP01-2012 (Duplicate of SW-N.POND-2012)	SW-NPOND-20121031	SW-SPOND-20121102	SW-N.POND-013013
	Aquatic Life Criteria		Human Health Criteria						
VOCs (SW846 8260B)	**Acute**	**Chronic**	**HTC**	**HNC**	9/11/2012	9/11/2012	10/31/2012	11/2/2012	1/30/2013
1,1,1-Trichloroethane	4,900	390	-	-	**140* / J**	**120* / J**	**3.1 J**	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	1,800	140	-	3.2	*100 U*	*100 U*	*5.0 U*	*5.0 U*	*5.0 U*
1,1,2-Trichloro-1,2,2-trifluoroethane	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	19,000	4,400	-	12	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U*/ UJ
1,1-Dichloroethane	20,000	2,000	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	3,000	240	-	120	**110**	**92 J**	**2.3 J**	5.0 U	5.0 U
1,2,4-Trichlorobenzene	370	72	-	-	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	2,400	190	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	210	170	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	25,000	4,500	-	23	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	4,800	380	5.7	-	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	500	200	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	1,800	620	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	320,000	26,000	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
2-Hexanone	12,000	950	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	4,600	1,400	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Acetone	1,500,000	120,000	-	-	400 U	400 U	20 U	20 U	20 U
Benzene	1,100	860	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	10	1	-	13	*100 U*	*100 U*	*5.0 U*	*5.0 U*	*5.0 U*
Bromoform	-	-	-	50	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U
Bromomethane	-	-	-	-	100 U	100 U	5.0 U	5.0 U* / UJ	5.0 U
Carbon disulfide	200	20	-	-	*100 U* / UJ*	*100 U* / UJ*	5.0 U	5.0 U	5.0 U* / UJ
Carbon tetrachloride	3,500	280	-	1.4	*100 U*	*100 U*	*5.0 U*	*5.0 U*	*5.0 U*
Chlorobenzene	990	79	4,500	-	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U
Chloroethane	13,000	1,000	-	-	100 U	100 U	5.0 U	5.0 U*	5.0 U
Chloroform	1,900	150	-	130	100 U	100 U	5.0 U	5.0 U	5.0 U
Chloromethane	16,000	1,300	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	-	-	-	-	**35 J**	**34 J**	**4.0 J**	5.0 U	**1.9 J**
cis-1,3-Dichloropropene	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Cyclohexane	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	-	-	-	9.8	*100 U*	*100 U*	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Methyl acetate	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	67,000	5,400	-	-	100 U	100 U	5.0 U	5.0 U* / UJ	5.0 U
Methylcyclohexane	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U* / UJ
Methylene chloride	17,000	1,400	-	330	100 U	100 U	5.0 U	5.0 U* / UJ	5.0 U
Styrene	2,500	200	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	1,200	150	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Toluene	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	-	-	34,000	-	100 U	100 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	-	-	-	-	100 U	100 U	5.0 U	5.0 U	5.0 U
Trichloroethene	12,000	940	-	26	**880**	**710**	**19**	5.0 U	**6.9**
Trichlorofluoromethane	-	-	250,000	-	100 U* / UJ	100 U* / UJ	5.0 U	5.0 U* / UJ	5.0 U* / UJ
Vinyl chloride	22,000	1,700	-	2.0	*100 U*	*100 U*	*5.0 U*	*5.0 U*	*5.0 U*
Xylenes, Total	-	-	-	-	300 U	300 U	15 U	15 U	15 U

Notes:
Concentrations in micrograms per liter (ug/L).
* - LCS or LCSD exceeds the control limits.
Bold - Indicates a detection of the noted compound.
Highlighted result is above one or more IEPA Derived Water Quality Criteria.
HTC - Human Threshold Criteria
HNC - Human Non-Threshold Criteria
IEPA - Illinois Environmental Protection Agency
IEPA Derived Water Quality Criteria - 35 Illinois Administrative Code Part 302.10 and Part 302.540.
Italicized - Indicates that the reporting limit exceeded one or more screening criteria
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U - Compound not detected
VOCs - Volatile organic compounds

JEF/DPP
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.7 Focused Site Investigation Report\Tables\Table 11_Surface Water Results\Surface Water Results

Exhibit 8

Selected Materials from
MWH's Focused Site Investigation (FSI) Addendum
(dated May 2014)


Figure 2
Potable Well Survey Locations
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
MW5-LS
MW13
MW13-LS
MW12
MW12-LS
PIN: 0813176003
Address: 15686 Henry Rd
PIN: 0813300022
Address: 13330 Deer Trace Dr
PIN: 0813401027
Address: 13496 Deer Trace Dr
PIN: 0813300031
Address: 15265 Deer Trace Ct
Deer Trace Ct
PIN: 0813300020
Address: 13264 Deer Trace Dr
PIN: 0813300039
Address: 13185 Deer Trace Dr
PIN: 0813300038
Address: 15288 Henry Rd
Deer Trace Dr
0 650 1,300 2,600 Feet
LEGEND:
Monitoring Well
Private Well Survey Location
Facility Boundary
Map Location
0 130 260 520 Feet
N
Orthoimagery Source: Whiteside County, Illinois

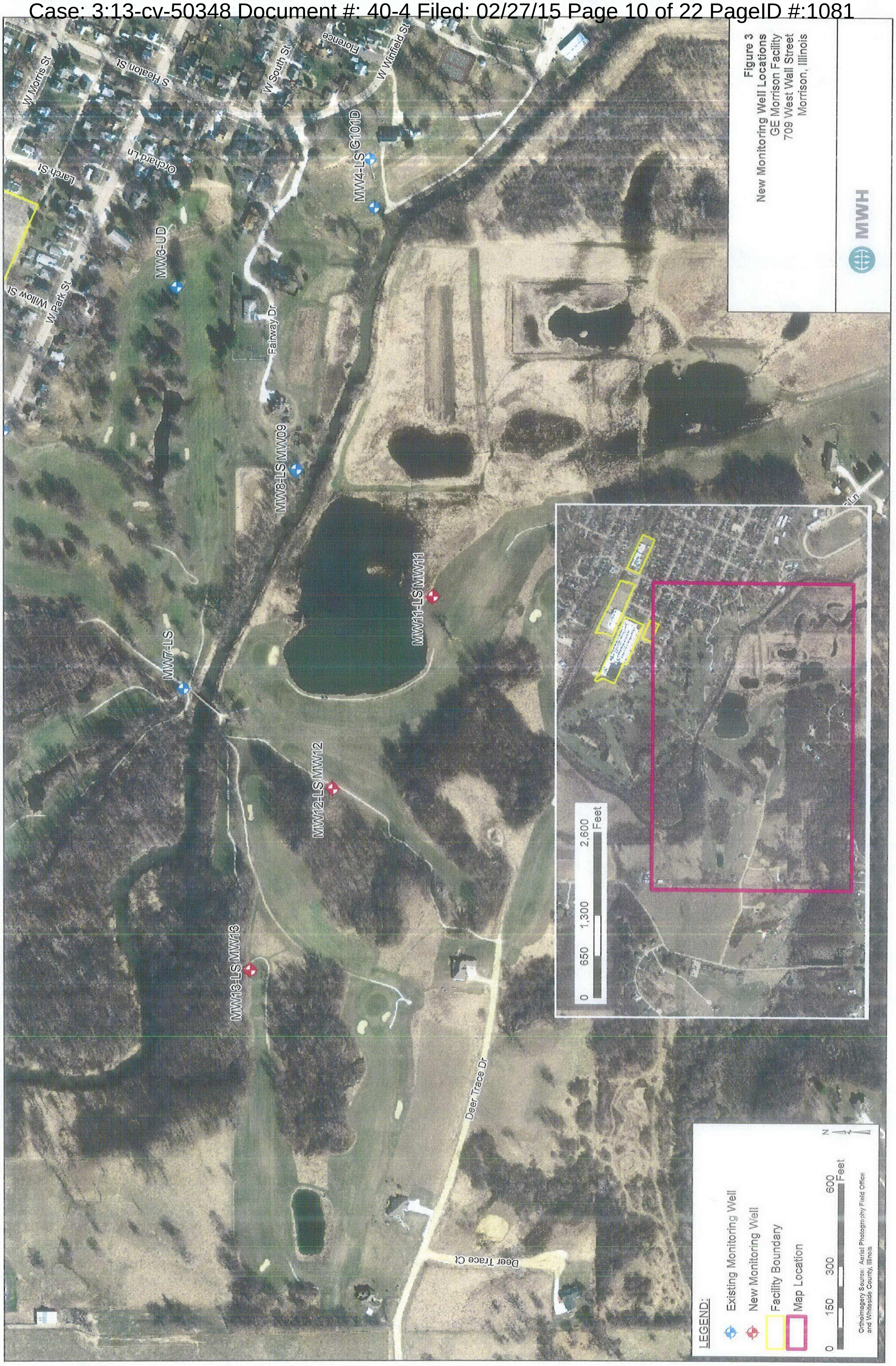


Figure 3
New Monitoring Well Locations
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
LEGEND:
Existing Monitoring Well
New Monitoring Well
Facility Boundary
Map Location
0 150 300 600 Feet
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
0 650 1,300 2,600 Feet
MW4-LS G101D
MW3-UD
MW8-LS MW09
MW11-LS MW11
MW7-LS
MW12-LS MW12
MW13-LS MW13
W Morris St
S Heaton St
W South St
Florence
W Winfield St
Orchard Ln
Larch St
Willow St
W Park St
Fairway Dr
Deer Trace Dr
Deer Trace Ct

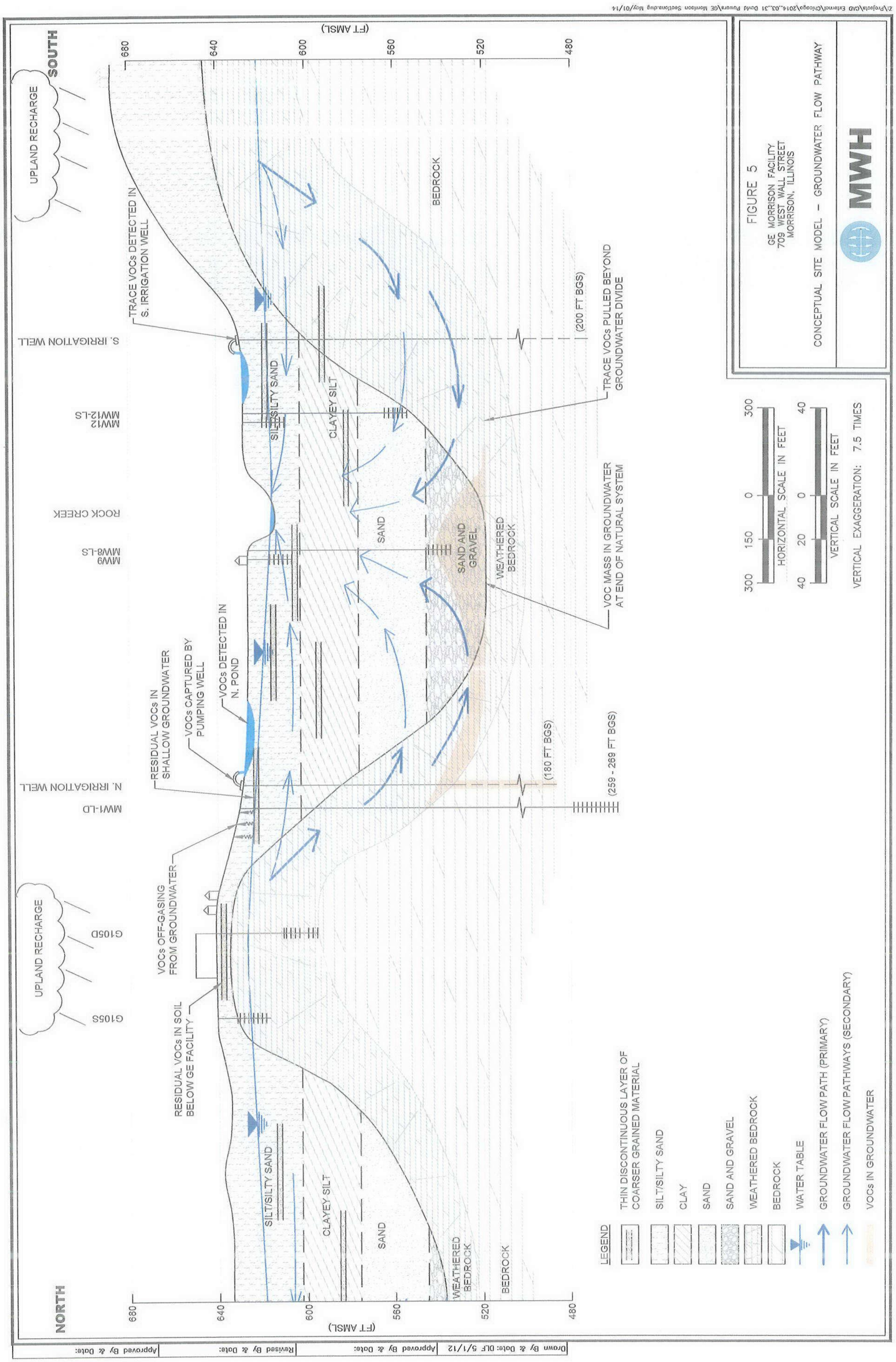


FIGURE 5
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CONCEPTUAL SITE MODEL – GROUNDWATER FLOW PATHWAY
MWH
NORTH
SOUTH
UPLAND RECHARGE
UPLAND RECHARGE
(FT AMSL)
680
640
600
560
520
480
G105S
G105D
MWI-LD
N. IRRIGATION WELL
MW9
MW8-LS
ROCK CREEK
MW12
MW12-LS
S. IRRIGATION WELL
RESIDUAL VOCs IN SOIL BELOW GE FACILITY
VOCs OFF-GASING FROM GROUNDWATER
RESIDUAL VOCs IN SHALLOW GROUNDWATER
VOCs CAPTURED BY PUMPING WELL
VOCs DETECTED IN N. POND
TRACE VOCs DETECTED IN S. IRRIGATION WELL
SILT/SILTY SAND
CLAYEY SILT
SAND
SAND AND GRAVEL
WEATHERED BEDROCK
BEDROCK
(180 FT BGS)
(259 - 269 FT BGS)
(200 FT BGS)
VOC MASS IN GROUNDWATER AT END OF NATURAL SYSTEM
TRACE VOCs PULLED BEYOND GROUNDWATER DIVIDE
LEGEND
THIN DISCONTINUOUS LAYER OF COARSER GRAINED MATERIAL
SILT/SILTY SAND
CLAY
SAND
SAND AND GRAVEL
WEATHERED BEDROCK
BEDROCK
WATER TABLE
GROUNDWATER FLOW PATH (PRIMARY)
GROUNDWATER FLOW PATHWAYS (SECONDARY)
VOCs IN GROUNDWATER
300 150 0 300
HORIZONTAL SCALE IN FEET
40 20 0 40
VERTICAL SCALE IN FEET
VERTICAL EXAGGERATION: 7.5 TIMES
Drawn By & Date: DLF 5/1/12
Approved By & Date:
Revised By & Date:
Approved By & Date:

Symbol	IEPA CLASS I GROUNDWATER STANDARD (µg/L)
1,1,1-TCA	200
1,1-DCA	700
1,2-DCA	5
1,1-DCE	7
2-Butanone	—
Acetone	6,300
Benzene	5
Carbon disulfide	700
Carbon tetrachloride	5
Chloroform	0.2
cis-1,2-DCE	70
Ethylbenzene	700
MC	5
PCE	5
TCE	5
Toluene	1,000
trans-1,2-DCE	100
VC	2
Xylenes, Total	10,000

GW-MW10-2014A	Result (µg/l)
Acetone	4.4 J
Chloroform	**0.21 J**
PCE	0.26 J

GW-G105S-2014A	Result (µg/l)
Acetone	5.8
1,1-DCA	1.0
2-Butanone	1.1 J
1,1,1-TCA	2.7
TCE	0.60 J

GW-G105D-2014A	Result (µg/l)
VC	**8.7**
1,1-DCE	**100**
MC	3.5 J
1,1-DCA	**52**
cis-1,2-DCE	14
1,2-DCA	4.1 J
TCE	**23**

GW-MW5-LS	Result (µg/l)
NOT SAMPLED IN FEBRUARY 2014	

GW-MW1-LD-2014A	Result (µg/l)
1,1-DCE	1.8
Acetone	5.9
1,1-DCA	1.2
1,1,1-TCA	0.53 J
Benzene	0.31 J
TCE	3.9

GW-MW7-LS-2014A	Result (µg/l)
1,1-DCE	**110 J**
1,1,1-TCA	110 J
TCE	**1800**

GW-MW4-UD-2014A	Result (µg/l)
1,1-DCE	1.2
Acetone	5.3
trans-1,2-DCE	6.8
1,1-DCA	0.30 J
cis-1,2-DCE	6.7
1,1,1-TCA	0.73 J
TCE	4.0
PCE	0.55 J

GW-MW2-UD-2014A	Result (µg/l)
Acetone	12
2-Butanone	1.8 J
Carbon tetrachloride	0.40 J
TCE	0.24 J
PCE	**13**

GW-MW13-2014A	Result (µg/l)
Acetone	5.0
2-Butanone	0.75 J
Benzene	0.22 J
Toluene	0.82 J

GW-MW3-UD	Result (µg/l)
NOT SAMPLED IN FEBRUARY 2014	

GW-MW8-LS-2014A	Result (µg/l)
VC	**52 J**
1,1-DCE	**92 J**
1,1-DCA	38 J
cis-1,2-DCE	**3000**
TCE	**460**

GW-MW9-2014A	Result (µg/l)
VC	**2.7**
Acetone	3.9 J
cis-1,2-DCE	10

GW-MW13-LS-2014A	Result (µg/l)
Acetone	4.3 J
Chloroform	0.19 J
Benzene	0.63 J
Toluene	9.9
Ethylbenzene	0.30 J
Xylenes, Total	0.91 J

GW-MW12-LS-2014A	Result (µg/l)
Acetone	5.1
2-Butanone	0.80 J
Benzene	0.23 J
Toluene	0.32 J

GW-MW12-2014A	Result (µg/l)
Acetone	3.3 J
Carbon disulfide	0.58 J
2-Butanone	0.65 J
Benzene	0.15 J

GW-MW11-2014A	Result (µg/l)
Acetone	15
2-Butanone	1.9 J

GW-MW11-LS-2014A	Result (µg/l)
Acetone	7.4
2-Butanone	1.0 J

GW-MW4-LS-2014A	Result (µg/l)
1,1-DCE	1.7 J
TCE	**110**
PCE	**18**

GW-G101D-2014A	Result (µg/l)
VC	0.48 J
Acetone	9.0
trans-1,2-DCE	0.38 J
cis-1,2-DCE	1.1
2-Butanone	1.5 J
TCE	0.20 J

GW-G104D-2014A	Result (µg/l)
Acetone	6.8
2-Butanone	1.2 J
TCE	0.57 J

GW-G104S-2014A	Result (µg/l)
Acetone	12
2-Butanone	1.9 J

SAMPLE ID →

COMPOUND DETECTED →

GW-MW7-LS-2014A	Result (µg/l)
1,1-DCE	**110 J**
1,1,1-TCA	110 J
TCE	**1800**

LEGEND:

Monitoring Well

Facility Boundary

N

0 215 430 860 Feet

Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois

NOTES:

1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
   1,1-DCA = 1,1-DICHLOROETHANE
   1,2-DCA = 1,2-DICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   CIS-1,2-DCE = CIS-1,2-DICHLOROETHENE
   MC = METHYLENE CHLORIDE
   PCE = TETRACHLOROETHENE
   TCE = TRICHLOROETHENE
   TRANS-1,2-DCE = TRANS-1,2-DICHLOROETHENE
   VC = VINYL CHLORIDE
   J = CONCENTRATION IS ESTIMATED
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD.
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L).
5. GROUNDWATER SAMPLES COLLECTED BY MWH ON FEBRUARY 13, 2014.

Figure 11C
Groundwater Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH

February 2014

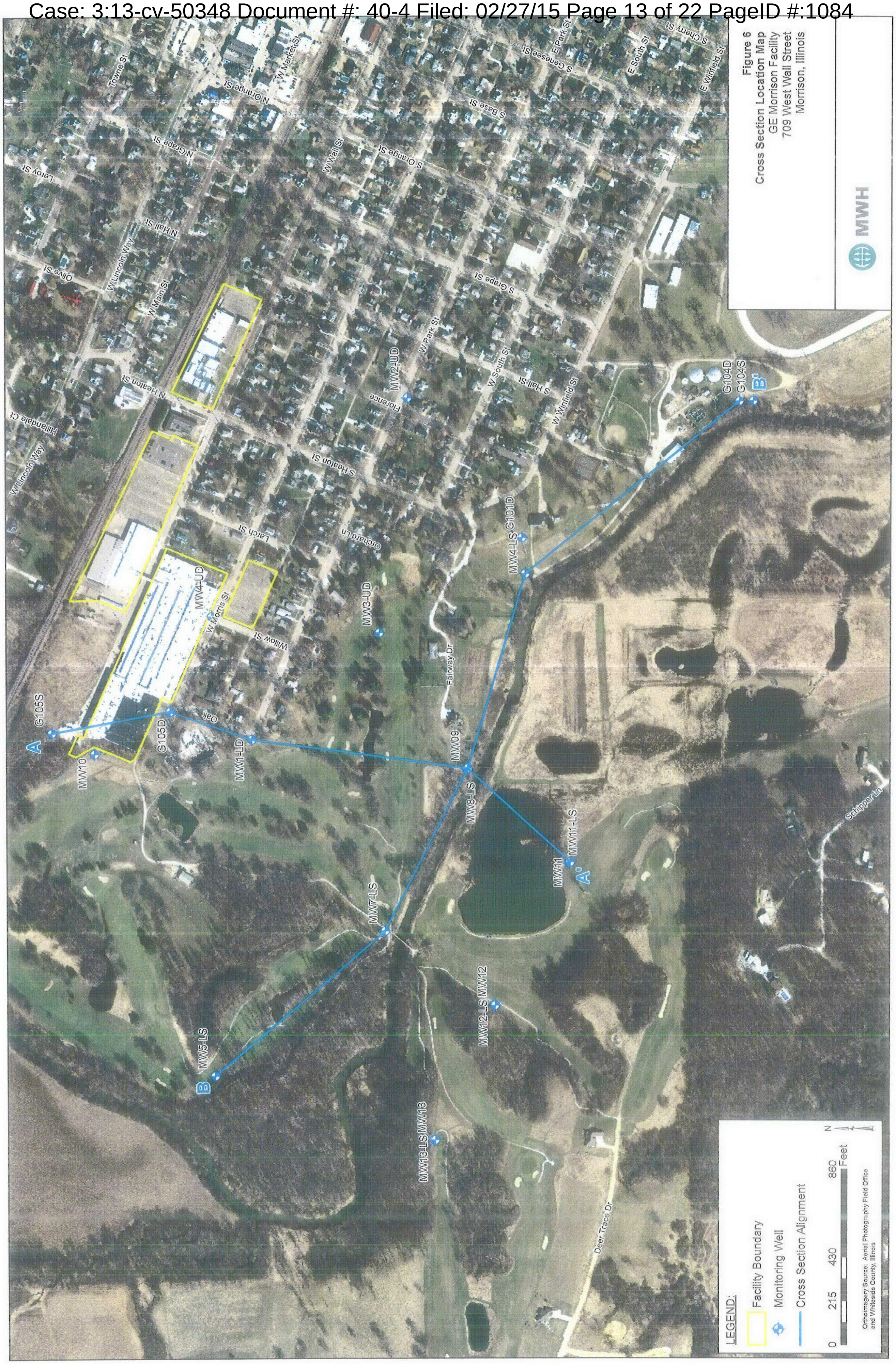
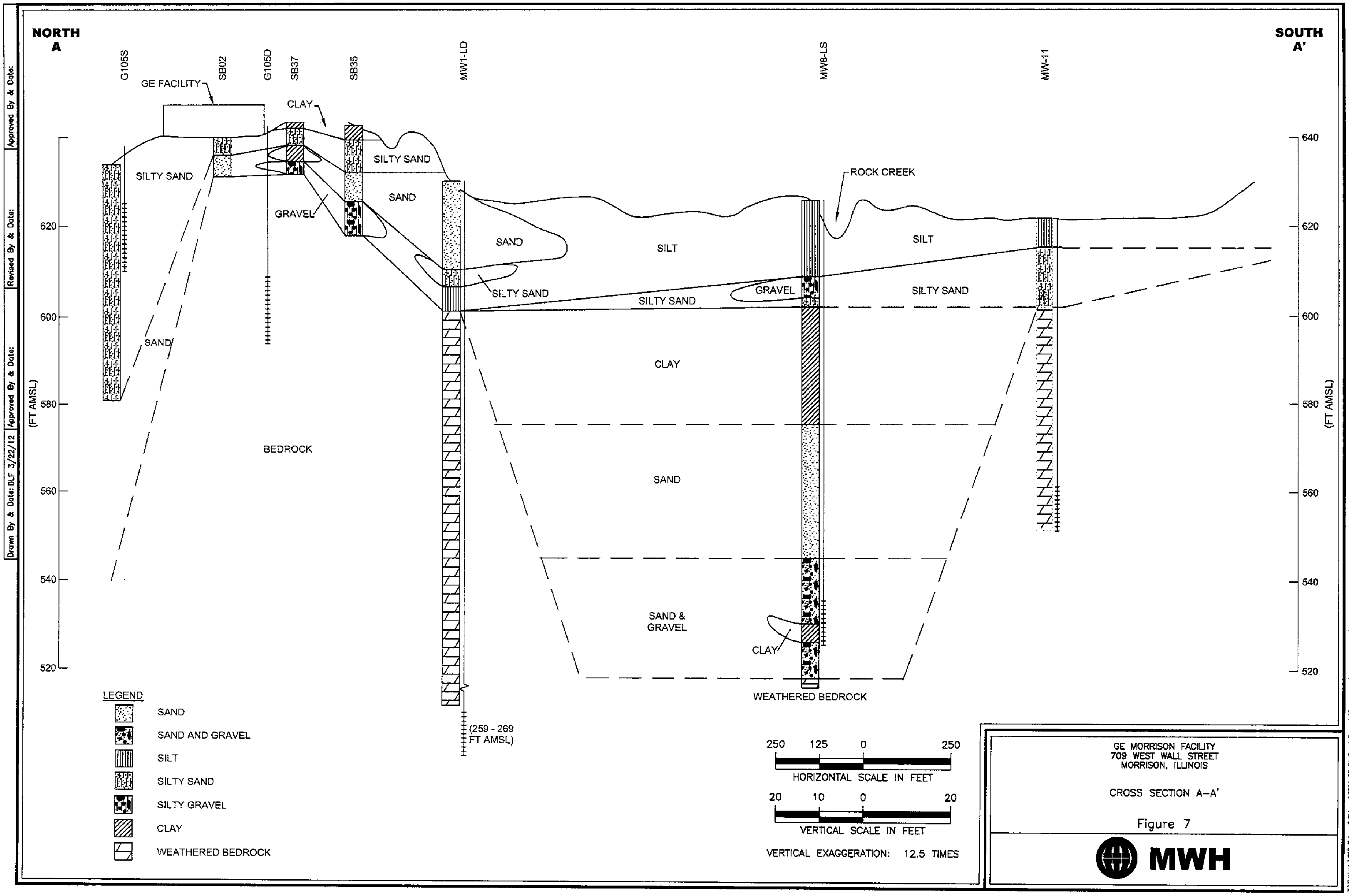
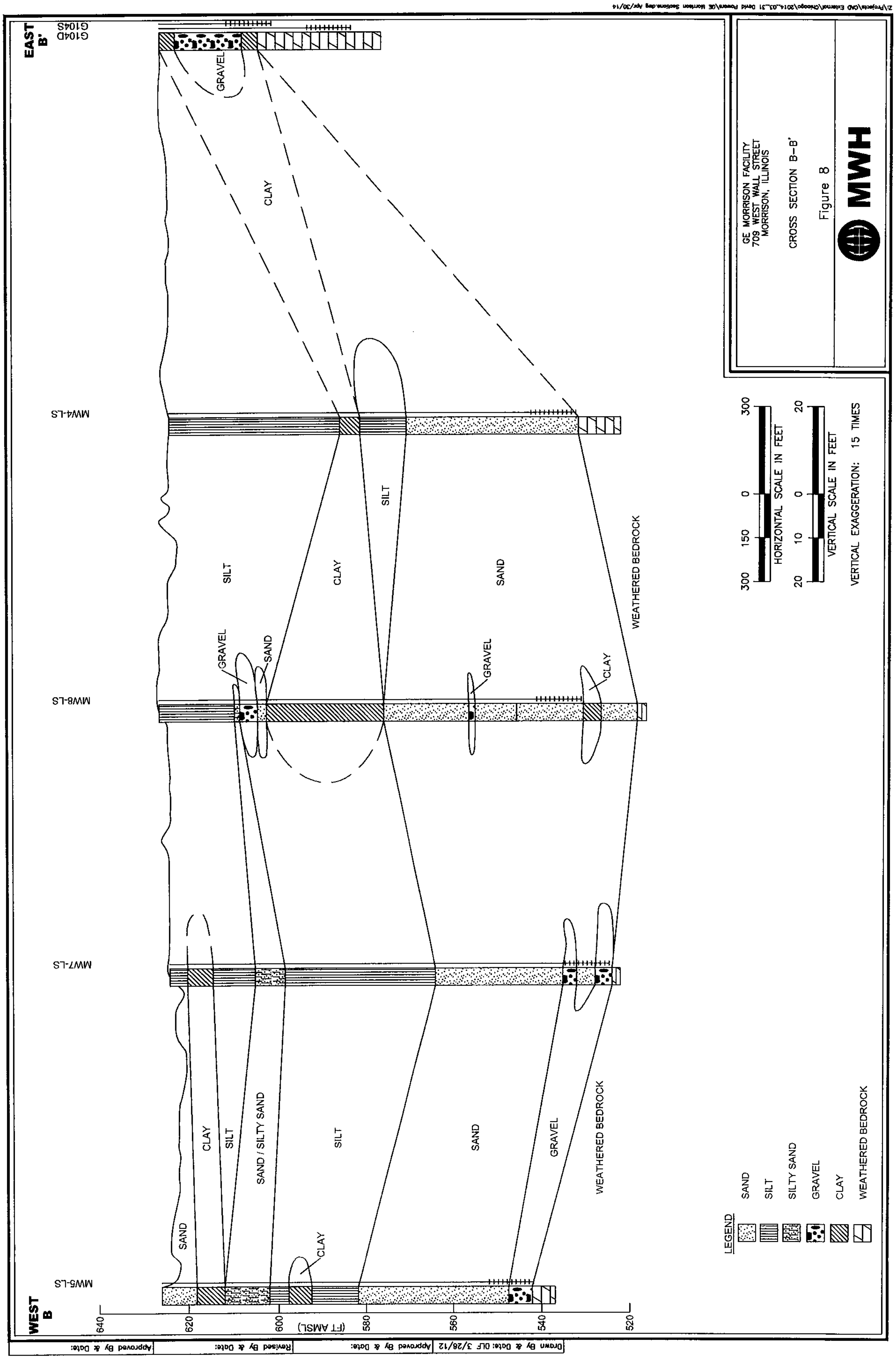


Figure 6
Cross Section Location Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
LEGEND:
Facility Boundary
Monitoring Well
Cross Section Alignment
0 215 430 860 Feet
N
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
A
A'
B
B'
G105S
G105D
MW10
MW1-LD
MW4-UD
MW3-UD
MW2-UD
MW09
MW6-LS
MW11-LS
MW11
MW7-LS
MW5-LS
MW12-LS MW12
MW13-LS MW13
MW4-LS
G101D
G104D
G104S
Deer Trace Dr
Schipper Ln
Fairway Dr
Orchard Ln
Larch St
Willow St
W Morris St
Florence
W South St
S Hall St
W Winfield St
W Park St
S Grape St
S Heaton St
W Wall St
S Orange St
N Heaton St
W Main St
W Lincoln Way
Hillandale Ct
Olive St
N Hall St
Leroy St
N Grape St
N Orange St
Towne St
W Market St
S Base St
S Genesee St
E Park St
E South St
S Cherry St
E Winfield St


NORTH
A
SOUTH
A'
G105S
SB02
G105D
SB37
SB35
MW1-LD
MW8-LS
MW-11
GE FACILITY
CLAY
SILTY SAND
SAND
GRAVEL
ROCK CREEK
SILT
SILTY SAND
GRAVEL
CLAY
SAND
SAND & GRAVEL
BEDROCK
WEATHERED BEDROCK
(259 - 269 FT AMSL)
(FT AMSL)
640
620
600
580
560
540
520
LEGEND
SAND
SAND AND GRAVEL
SILT
SILTY SAND
SILTY GRAVEL
CLAY
WEATHERED BEDROCK
250 125 0 250
HORIZONTAL SCALE IN FEET
20 10 0 20
VERTICAL SCALE IN FEET
VERTICAL EXAGGERATION: 12.5 TIMES
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CROSS SECTION A-A'
Figure 7
MWH
Drawn By & Date: DLF 3/22/12
Approved By & Date:
Revised By & Date:
Approved By & Date:



GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CROSS SECTION B-B'
Figure 8
MWH
WEST
B
EAST
B'
MW5-LS
MW7-LS
MW8-LS
MW4-LS
G104D
G104S
640
620
600
580
560
540
520
(FT AMSL)
SAND
CLAY
SILT
SAND / SILTY SAND
GRAVEL
WEATHERED BEDROCK
300
150
0
HORIZONTAL SCALE IN FEET
20
10
VERTICAL SCALE IN FEET
VERTICAL EXAGGERATION: 15 TIMES
LEGEND
SAND
SILT
SILTY SAND
GRAVEL
CLAY
WEATHERED BEDROCK
Drawn By & Date: OLF 3/28/12
Approved By & Date:
Revised By & Date:
Approved By & Date:


Figure 9A
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
May 2013
MWH
626.0
625.5
625.0
624.5
624.0
623.5
623.0
622.5
622.0
621.5
621.0
MW2-UD (626.59)
MW4-UD (625.81)
MW4-LS (623.66)
MW8-LS (623.52)
MW09
G101D
G104D (620.82)
G104S
G105S
G105D
MW1-LD
MW10 (NM)
MW7-LS (NM)
MW5-LS (NM)
NOTES:
1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON MAY 17, 2013.
2. SURFACE WATER ELEVATIONS SURVEYED BY NORWEST SURVEYING ON MAY 17, 2013.
3. NM = NOT MEASURED IN MAY 2013
4. CONTOURS REPRESENT THE POTENTIOMETRIC SURFACE OF WELLS SCREENED BETWEEN 522 AND 592 FEET ABOVE MEAN SEA LEVEL.
LEGEND:
Facility Boundary
Monitoring Well
(624.83) Potentiometric Elevation - Feet Above Mean Sea Level
625.0 Potentiometric Contour Line
625.0 Inferred Potentiometric Contour Line
0 215 430 860 Feet
N
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
Prospect St
N Orange St
N Base St
W Knox St
W Market St
N Grape St
Leroy St
Towne St
N Hall St
Olive St
W Lincoln Way
W Main St
N Heaton St
Hillandale Ct
S Heaton St
Florence
Larch St
Fairway Dr
Oak
S Hall St
W Morris St
W Wall St
S Orange St
S Grape St
W Park St
W South St
W Winfield St
S Base St
S Genesee St
E Morris St
E Park St
S Cherry St
E South St
E Winfield St
Schipper Ln


G105S
MW10
(NM)
G105D
Oak
MW1-LD
MW4-UD
(622.75)
MW5-LS
(NM)
MW7-LS
(NM)
MW3-UD
(NM)
MW2-UD
(623.96)
MW8-LS
(620.74)
MW09
G101D
MW4-LS
(620.97)
G104D
(618.54)
G104S
623
622
621
620
619
W Lincoln Way
Hillandale Ct
Olive St
Leroy St
Towne St
Prospect St
N Orange St
N Heaton St
W Main St
N Hall St
N Grape St
W Knox St
N Base St
N Orange St
W Market St
Willow St
Larch St
S Heaton St
W Wall St
W Morris St
Florence
S Hall St
S Orange St
Fairway Dr
W Park St
W South St
S Grape St
S Base St
S Genesee St
E Morris St
W Winfield St
E Park St
E South St
S Cherry St
E Winfield St
Schipper Ln
NOTES:
1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON SEPTEMBER 4, 2013.
2. SURFACE WATER ELEVATIONS SURVEYED BY NORWEST SURVEYING ON SEPTEMBER 4, 2013.
3. NM = NOT MEASURED IN SEPTEMBER 2013.
4. CONTOURS REPRESENT THE POTENTIOMETRIC SURFACE OF WELLS SCREENED BETWEEN 522 AND 592 FEET ABOVE MEAN SEA LEVEL.
LEGEND:
Facility Boundary
Monitoring Well
(621.22) Potentiometric Elevation - Feet Above Mean Sea Level
621.0 Potentiometric Contour Line
621.0 Inferred Potentiometric Contour Line
0 215 430 860
Feet
N
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
Figure 9B
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
September 2013

LEGEND:

Facility Boundary

Monitoring Well

(620.81) Potentiometric Elevation - Feet Above Mean Sea Level

621.0 Potentiometric Contour Line

Potentiometric Distribution Cross Section Alignment (Figure 10)

0 215 430 860 Feet

N

Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois

NOTES:

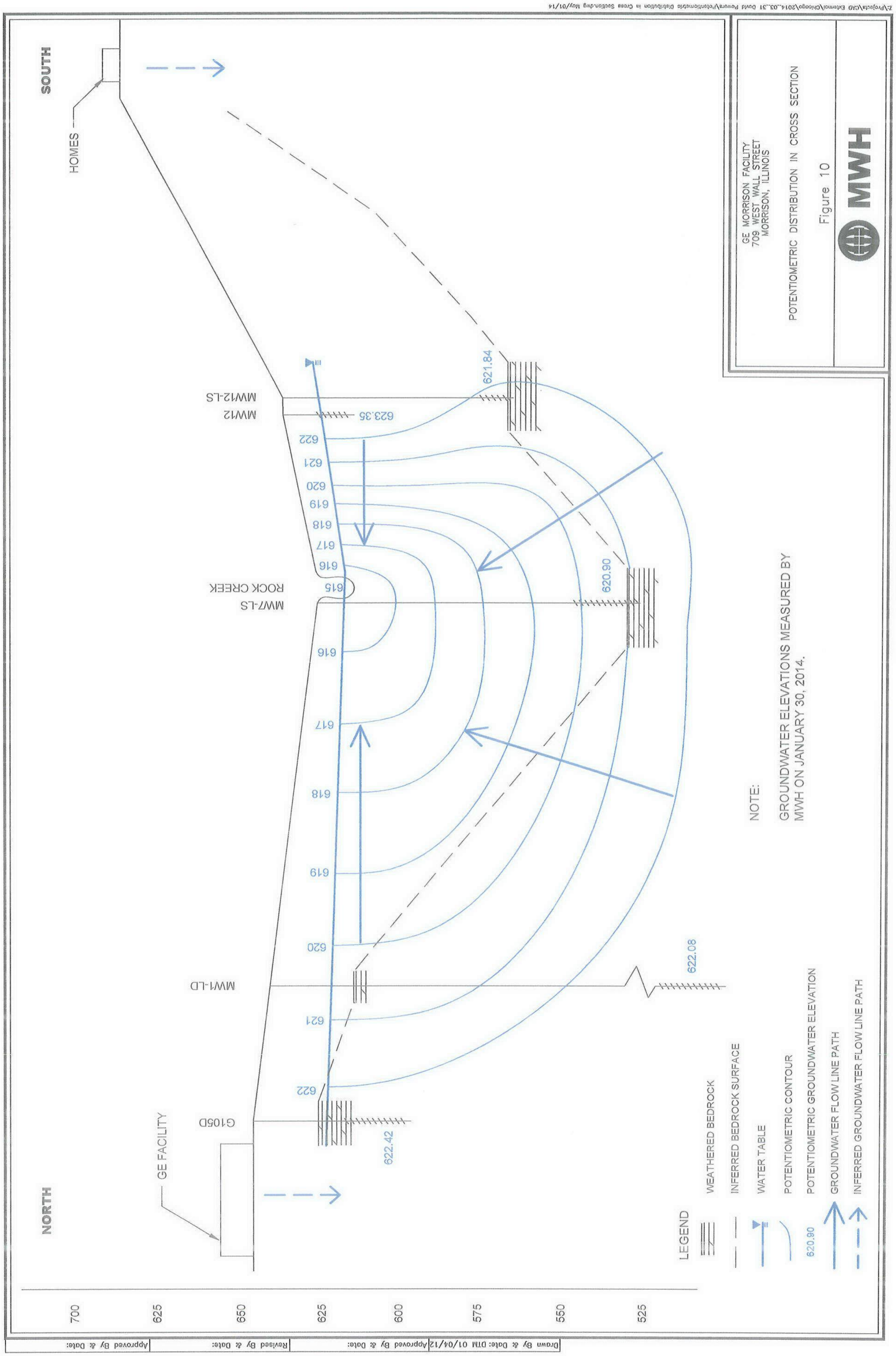
1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON JANUARY 30, 2014.
2. SURFACE WATER ELEVATIONS SURVEYED BY NORWEST SURVEYING ON JANUARY 30, 2014.
3. NM = NOT MEASURED IN JANUARY 2014.
4. CONTOURS REPRESENT THE POTENTIOMETRIC SURFACE OF WELLS SCREENED BETWEEN 522 AND 592 FEET ABOVE MEAN SEA LEVEL.

Figure 9C
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH

January 2014


Figure 9D
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
April 2014
NOTES:
1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON APRIL 8, 2014.
2. SURFACE WATER ELEVATIONS SURVEYED BY NORWEST SURVEYING ON APRIL 8, 2014.\
3. CONTOURS REPRESENT THE POTENTIOMETRIC SURFACE OF WELLS SCREENED BETWEEN 522 AND 592 FEET ABOVE MEAN SEA LEVEL.
LEGEND:
Facility Boundary
Monitoring Well
(622.95) Potentiometric Elevation - Feet Above Mean Sea Level
621.0 Potentiometric Contour Line
621.0 Inferred Potentiometric Contour Line
0 215 430 860 Feet
N
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
MW2-UD (623.88)
MW3-UD (622.55)
MW4-UD (623.73)
MW4-LS (621.92)
G101D
G104D (619.07)
G104S
G105D
G105S
MW1-LD
MW10 (623.15)
MW5-LS (622.95)
MW7-LS (622.05)
MW8-LS (621.88)
MW09
MW11 (621.94)
MW11-LS
MW12
MW12-LS (622.67)
MW13 (622.06)
MW13-LS
623
622
621
620
622
623
N Orange St
N Base St
W Knox St
W Market St
N Grape St
N Hall St
W Main St
W Lincoln Way
N Heaton St
Prospect St
Leroy St
Towne St
Olive St
Hillandale Ct
S Orange St
S Base St
S Genesee St
E Morris St
E Park St
S Cherry St
E South St
E Winfield St
W Wall St
S Grape St
W Park St
W South St
W Morris St
S Hall St
W Winfield St
Florence
S Heaton St
Orchard Ln
Larch St
Willow St
Oak
Fairway Dr
Schipper Ln


GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
POTENTIOMETRIC DISTRIBUTION IN CROSS SECTION
Figure 10
MWH
NOTE:
GROUNDWATER ELEVATIONS MEASURED BY MWH ON JANUARY 30, 2014.
LEGEND
WEATHERED BEDROCK
INFERRED BEDROCK SURFACE
WATER TABLE
POTENTIOMETRIC CONTOUR
620.90 POTENTIOMETRIC GROUNDWATER ELEVATION
GROUNDWATER FLOW LINE PATH
INFERRED GROUNDWATER FLOW LINE PATH
SOUTH
NORTH
HOMES
GE FACILITY
G105D
MW1-LD
MW7-LS
ROCK CREEK
MW12
MW12-LS
621.84
623.35
620.90
622.08
622.42
622
621
620
619
618
617
616
615
700
675
650
625
600
575
550
525
Drawn By & Date: DTM 01/04/12
Approved By & Date:
Revised By & Date:
Approved By & Date:


IEPA CLASS I GROUNDWATER STANDARD (µg/L)
Symbol
1,1,1-TCA 200
1,1-DCA 700
1,1-DCE 7
cis-1,2-DCE 70
PCE 5
TCE 5
trans-1,2-DCE 100
GW-G105D-2013A Result (µg/l)
1,1,1-TCA 260
1,1-DCA 68
1,1-DCE 360
CIS-1,2-DCE 18 J
TCE 210
GW-MW10-2013A Result (µg/l)
NOT SAMPLED IN JUNE 2013
GW-G105S-2013A Result (µg/l)
1,1,1-TCA 1.2 J
1,1-DCA 1.3 J
GW-MW5-LS-2013A Result (µg/l)
NOT SAMPLED IN JUNE 2013
GW-MW4-UD-2013A Result (µg/l)
CIS-1,2-DCE 4.9 J
TRANS-1,2-DCE 4.4 J
TCE 3.2 J
GW-MW1-LD-2013A Result (µg/l)
TCE 2.2 J
GW-MW7-LS-2013A Result (µg/l)
NOT SAMPLED IN JUNE 2013
GW-MW2-UD-2013A Result (µg/l)
PCE 9.9
GW-MW3-UD-2013A Result (µg/l)
NOT SAMPLED IN JUNE 2013
GW-MW8-LS-2013A Result (µg/l)
1,1-DCA 29 J
1,1-DCE 81
cis-1,2-DCE 2300
TRANS-1,2-DCE 7.9 J
TCE 26 J
GW-MW9-2013A Result (µg/l)
CIS-1,2-DCE 1.5 J
GW-MW4-LS-2013A Result (µg/l)
1,1,1-TCA 2.2 J
1,1-DCE 1.1 J
PCE 11
TCE 87
GW-G101D-2013A Result (µg/l)
NO VOCs DETECTED
GW-G104D-2013A Result (µg/l)
NO VOCs DETECTED
GW-G104S-2013A Result (µg/l)
NO VOCs DETECTED
W Lincoln Way
Hillandale Ct
Olive St
Leroy St
Prospect St
Towne St
N Orange St
W Main St
N Heaton St
N Hall St
N Grape St
W Knox St
N Base St
N Orange St
W Market St
W Wall St
Oak
Willow St
Larch St
S Heaton
Orchard Ln
S Orange St
W Park St
Fairway Dr
Florence
W South St
S Hall St
S Grape St
S Base St
S Genesee St
E Park St
W Winfield St
E South St
S Cherry St
E Winfield St
Deer Trace Dr
Deer Trace Ct
Schipper Ln
SAMPLE ID
COMPOUND DETECTED
GW-MW4-UD-2013A Result (µg/l)
CIS-1,2-DCE 4.9 J
TRANS-1,2-DCE 4.4 J
TCE 3.2 J
LEGEND:
Monitoring Well
Facility Boundary
N
0 215 430 860 Feet
Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois
NOTES:
1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
1,1-DCA = 1,1-DICHLOROETHANE
1,1-DCE = 1,1-DICHLOROETHENE
CIS-1,2-DCE = CIS-1,2-DICHLOROETHENE
PCE = TETRACHLOROETHENE
TRANS-1,2-DCE = TRANS-1,2-DICHLOROETHENE
TCE = TRICHLOROETHENE
J = CONCENTRATION IS ESTIMATED
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD.
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L).
5. GROUNDWATER SAMPLES COLLECTED BY MWH ON JUNE 11, 2013.
Figure 11A
Groundwater Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois
MWH
June 2013

Symbol	IEPA CLASS I GROUNDWATER STANDARD (µg/L)
1,1,1-TCA	200
1,1-DCA	700
1,1-DCE	7
cis-1,2-DCE	70
PCE	5
TCE	5
trans-1,2-DCE	100
VC	2

NOTES:
1. 1,1,1-TCA = 1,1,1-TRICHLOROETHANE
   1,1-DCA = 1,1-DICHLOROETHANE
   1,1-DCE = 1,1-DICHLOROETHENE
   CIS-1,2-DCE = CIS-1,2-DICHLOROETHENE
   PCE = TETRACHLOROETHENE
   TRANS-1,2-DCE = TRANS-1,2-DICHLOROETHENE
   TCE = TRICHLOROETHENE
   VC = VINYL CHLORIDE
   J = CONCENTRATION IS ESTIMATED
2. ONLY DETECTED COMPOUNDS ARE SHOWN.
3. RESULTS IN BOLD BLUE FONT ARE ABOVE THE IEPA CLASS I GROUNDWATER STANDARD.
4. RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L).
5. GROUNDWATER SAMPLES COLLECTED BY MWH ON SEPTEMBER 25, 2013.

Figure 11B
Groundwater Sample Results
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

September 2013

Document 10 – Part 5

Expert Report of Konrad J. Banaszak, Genesis Engineering & Development, dated 11/13/2014

Table 1
Groundwater Monitoring Well Summary
GE Morrison Facility
Morrison, IL

Well ID	Type	Screened Formation	Well Depth (feet bgs)	Screened Interval (feet amsl)	Date Installed	Notes
G101D	Stickup	Lower Dolomite	239	384.9 - 400.9	Phase I (1987)[a]	
G102D	Stickup	Upper Dolomite	82.2	629.5 - 645.5	Phase I (1987)[a]	Not Sampled[1]
G103S	Stickup	Lower Unconsolidated Sediments	27.5	669.2 - 685.2	Phase I (1987)[a]	Not Sampled[1]
G104S	Stickup	Lower Unconsolidated Sediments	17.7	606.6 - 617.1	Phase I (1987)[a]	
G104D	Stickup	Upper Dolomite	49	575.6 - 591.6	Phase I (1987)[a]	
G105S/R	Stickup	Upper Unconsolidated Sediments	24	610.2 - 626.2	Phase I (1987)[a]	Replacement Well[2]
G105D	Stickup	Upper Dolomite	48.1	594.0 - 609.9	Phase I (1987)[a]	
G106D	Stickup	Upper Dolomite	22.5	609.9 - 625.9	Phase I (1987)[a]	Not Sampled[1]
MW1-LD	Stickup	Lower Dolomite	269	368.1 - 378.1	Phase II (1988-1989)[b]	
MW2-UD	Stickup	Upper Dolomite	62	578.4 - 588.4	Phase II (1988-1989)[b]	
MW3-UD	Flushmount	Upper Dolomite	102	522.7 - 532.7	Phase II (1988-1989)[b]	Damaged[3]
MW4-LS	Stickup	Lower Unconsolidated Sediments	93.5	530.8 - 540.8	Phase II (1988-1989)[b]	
MW4-UD	Stickup	Upper Dolomite	91	541.6 - 546.6	Phase II (1988-1989)[b]	
MW5-LS	Flushmount	Lower Unconsolidated Sediments	83	541.0 - 551.0	Phase II (1988-1989)[b]	
MW6-BF	NA	Backfill	10.8	615.4 - 620.4	Phase II (1988-1989)[b]	Abandoned[4]
MW7-LS	Flushmount	Lower Unconsolidated Sediments	100	526.0 - 536.0	FSI (2011)[c]	
MW8-LS	Flushmount	Lower Unconsolidated Sediments	96	529.7 - 539.7	FSI (2011)[c]	
MW-9	Flushmount	Water Table	19.5	606.9 - 616.9	FSI (2012)[c]	
MW-10	Flushmount	Lower Unconsolidated Sediments	101.5	524.1 - 534.1	FSI (2012)[c]	
MW-11	Flushmount	Upper Dolomite	70	552.5 - 562.5	Supplemental Investigation (2014)[d]	
MW11-LS	Flushmount	Lower Unconsolidated Sediments/Water Table	20	602.5 - 612.5	Supplemental Investigation (2014)[d]	
MW-12	Flushmount	Water Table	20	616.9 - 626.9	Supplemental Investigation (2014)[d]	
MW12-LS	Flushmount	Lower Unconsolidated Sediments	69	568.6 - 578.6	Supplemental Investigation (2014)[d]	
MW-13	Flushmount	Upper Dolomite	140	554.5 - 564.5	Supplemental Investigation (2014)[d]	
MW13-LS	Flushmount	Lower Unconsolidated Sediments	81	614.0 - 624.0	Supplemental Investigation (2014)[d]	

Notes:

amsl - above mean sea level
bgs - below ground surface

[a] Phase I Investigation conducted by John Mathes & Associates (1987) for IEPA.
[b] Phase II Investigation conducted by Canonie Environmental (1988-1989) for General Electric.
[c] Focused Site Investigation conducted by MWH (2011-2013) for General Electric.
[d] Supplemental Investigation conducted by MWH (2014) for General Electric.
[1] Wells G102D, G103S and G106D are not sampled as part of General Electric's ongoing investigation.
[2] G105S/R installed as replacement well for G105S.
[3] MW3-UD is damaged and unusable.
[4] MW6-BF was installed in backfill of existing city sewer, it was abandoned by Canonie.

Table 2A
Groundwater Elevation Data - May 2013
GE Morrison Facility
Morrison, Illinois

Monitoring Well	Screened Interval (feet bgs)	Screened Formation	Measured Top of Casing Elevation	Depth to Water Below Top of Casing (feet)	Groundwater Elevation
MW1-LD	259-269	Lower Dolomite	639.91	15.08	624.83
MW2-UD	52-62	Upper Dolomite	642.82	16.13	626.69
MW3-UD	92-102	Upper Dolomite	624.34	NM	NM
MW4-LS	83.5-93.5	Lower Unconsolidated Sediments	626.61	2.95	623.66
MW4-UD	86-91	Upper Dolomite	635.17	9.36	625.81
MW5-LS	73-83	Lower Unconsolidated Sediments	623.35	NM	NM
MW7-LS	90-100	Lower Unconsolidated Sediments	625.73	NM	NM
MW8-LS	86-96	Lower Unconsolidated Sediments	625.34	1.82	623.52
MW9	10-20	Water Table	626.02	7.15	618.87
MW10	91.5-101.5	Lower Unconsolidated Sediments	625.55	NM	NM
G101D	223-239	Lower Dolomite	626.10	2.52	623.58
G104S	7.2-17.7	Lower Unconsolidated Sediments	626.90	7.20	619.70
G104D	33-49	Upper Dolomite	626.90	6.08	620.82
G105S	8-24	Upper Unconsolidated Sediments	636.91	12.12	624.79
G105D	32.2-48.1	Upper Dolomite	644.39	19.24	625.15

Notes:
bgs - below ground surface
Elevations reported in feet above mean sea level.
Groundwater level measurements collected on May 17, 2013.
NM - Water level not collected in May 2013.

JEF/CRS/DPP/PJV
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\
Table 2A_GW Elevations_May13\Table 1-WL Data_May13

Table 2B
Groundwater Elevation Data - September 2013
GE Morrison Facility
Morrison, Illinois

Monitoring Well	Screened Interval (feet bgs)	Screened Formation	Measured Top of Casing Elevation	Depth to Water Below Top of Casing (feet)	Groundwater Elevation
MW1-LD	259-269	Lower Dolomite	639.91	18.69	621.22
MW2-UD	52-62	Upper Dolomite	642.82	18.86	623.96
MW3-UD	92-102	Upper Dolomite	624.34	NM	NM
MW4-LS	83.5-93.5	Lower Unconsolidated Sediments	626.61	5.64	620.97
MW4-UD	86-91	Upper Dolomite	635.17	12.42	622.75
MW5-LS	73-83	Lower Unconsolidated Sediments	623.35	NM	NM
MW7-LS	90-100	Lower Unconsolidated Sediments	625.73	NM	NM
MW8-LS	86-96	Lower Unconsolidated Sediments	625.34	4.60	620.74
MW9	10-20	Water Table	626.02	9.86	616.16
MW10	91.5-101.5	Lower Unconsolidated Sediments	625.55	NM	NM
G101D	223-239	Lower Dolomite	626.10	5.12	620.98
G104S	7.2-17.7	Lower Unconsolidated Sediments	626.90	9.30	617.60
G104D	33-49	Upper Dolomite	626.90	8.36	618.54
G105S	8-24	Upper Unconsolidated Sediments	636.91	15.46	621.45
G105D	32.2-48.1	Upper Dolomite	644.39	22.76	621.63

Notes:
bgs - below ground surface
Elevations reported in feet above mean sea level.
Groundwater level measurements collected on September 4, 2013.
NM - Water level not collected in September 2013.

JEF/DLG/PJV
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\
Table 2B_GW Elevations_Sep13\Table 1-WL Data_Sep13

Table 2C
Groundwater Elevation Data - January 2014
GE Morrison Facility
Morrison, Illinois

Monitoring Well	Screened Interval (feet bgs)	Screened Formation	Measured Top of Casing Elevation	Depth to Water Below Top of Casing (feet)	Groundwater Elevation
MW1-LD	259-269	Lower Dolomite	639.91	17.83	622.08
MW2-UD	52-62	Upper Dolomite	642.82	19.95	622.87
MW3-UD	92-102	Upper Dolomite	624.34	NM	NM
MW4-LS	83.5-93.5	Lower Unconsolidated Sediments	626.61	5.79	620.82
MW4-UD	86-91	Upper Dolomite	635.17	12.49	622.68
MW5-LS	73-83	Lower Unconsolidated Sediments	623.35	NM	NM
MW7-LS	90-100	Lower Unconsolidated Sediments	625.73	4.83	620.90
MW8-LS	86-96	Lower Unconsolidated Sediments	625.34	4.53	620.81
MW9	10-20	Water Table	626.02	9.62	616.40
MW10	91.5-101.5	Lower Unconsolidated Sediments	625.55	3.58	621.97
MW11	60-70	Upper Dolomite	621.94	0.98	620.96
MW11-LS	10-20	Lower Unconsolidated Sediments/Water Table	622.10	1.76	620.34
MW12	10-20	Water Table	636.54	13.19	623.35
MW12-LS	59-69	Lower Unconsolidated Sediments	637.15	15.31	621.84
MW13	130-140	Upper Dolomite	693.55	71.38	622.17
MW13-LS	71-81	Lower Unconsolidated Sediments	694.50	72.04	622.46
G101D	223-239	Lower Dolomite	626.10	5.52	620.58
G104S	7.2-17.7	Lower Unconsolidated Sediments	626.90	9.82	617.08
G104D	33-49	Upper Dolomite	626.90	8.99	617.91
G105S	8-24	Upper Unconsolidated Sediments	636.91	14.82	622.09
G105D	32.2-48.1	Upper Dolomite	644.39	21.97	622.42

Notes:
bgs - below ground surface
Elevations reported in feet above mean sea level.
Groundwater level measurements collected on January 30, 2014.
NM - Water level not collected in January 2014.

JEF/NK/PJV
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\
Table 2C_GW Elevations_Jan14\Table 1-WL Data_Jan14

Table 2D
Groundwater Elevation Data - April 2014
GE Morrison Facility
Morrison, Illinois

Monitoring Well	Screened Interval (feet bgs)	Screened Formation	Measured Top of Casing Elevation	Depth to Water Below Top of Casing (feet)	Groundwater Elevation
MW1-LD	259-269	Lower Dolomite	639.91	16.69	623.22
MW2-UD	52-62	Upper Dolomite	642.82	18.94	623.88
MW3-UD	92-102	Upper Dolomite	624.34	1.79	622.55
MW4-LS	83.5-93.5	Lower Unconsolidated Sediments	626.61	4.69	621.92
MW4-UD	86-91	Upper Dolomite	635.17	11.44	623.73
MW5-LS	73-83	Lower Unconsolidated Sediments	623.35	0.40	622.95
MW7-LS	90-100	Lower Unconsolidated Sediments	625.73	3.71	622.02
MW8-LS	86-96	Lower Unconsolidated Sediments	625.34	3.46	621.88
MW9	10-20	Water Table	626.02	7.74	618.28
MW10	91.5-101.5	Lower Unconsolidated Sediments	625.55	2.40	623.15
MW11	60-70	Upper Dolomite	621.94	0.00	621.94
MW11-LS	10-20	Lower Unconsolidated Sediments/Water Table	622.10	0.00	622.10
MW12	10-20	Water Table	636.54	12.53	624.01
MW12-LS	59-69	Lower Unconsolidated Sediments	637.15	14.48	622.67
MW13	130-140	Upper Dolomite	693.55	71.49	622.06
MW13-LS	71-81	Lower Unconsolidated Sediments	694.50	70.76	623.74
G101D	223-239	Lower Dolomite	626.10	4.36	621.74
G104S	7.2-17.7	Lower Unconsolidated Sediments	626.90	8.72	618.18
G104D	33-49	Upper Dolomite	626.90	7.83	619.07
G105S	8-24	Upper Unconsolidated Sediments	636.91	13.41	623.50
G105D	32.2-48.1	Upper Dolomite	644.39	20.83	623.56

Notes:
bgs - below ground surface
Elevations reported in feet above mean sea level.
Groundwater level measurements collected on April 8, 2014.

JEF/NK/PJV
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\Table 2D_GW Elevations_Apr14\Table 1-WL Data_Jan14

Table 3A
Groundwater Sample Results - June 2013
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW1-LD-2013A	GW-MW2-UD-2013A	GW-MW3-UD-2013A	GW-MW4-LS-2013A	GW-MW4-UD-2013A	GW-MW5-LS-2013A	GW-MW7-LS-2013A	GW-MW8-LS-2013A	GW-MW9-2013A
VOCs (SW846 8260B)			6/11/2013	6/11/2013	NS	6/11/2013	6/11/2013	NS	NS	6/11/2013	6/11/2013
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U	NS	**2.2 J**	5.0 U	NS	NS	50 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	*50 U*	5.0 U
1,1-Dichloroethane	µg/l	700	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	**29 J**	5.0 U
1,1-Dichloroethene	µg/l	7	5.0 U	5.0 U	NS	**1.1 J**	5.0 U	NS	NS	**81**	5.0 U
1,2,4-Trichlorobenzene	µg/l	70	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	*50 U*	5.0 U
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	*50 U*	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
2-Hexanone	µg/l	--	5.0 U/UJ	5.0 U/UJ	NS	5.0 U/UJ	5.0 U*/UJ	NS	NS	50 U/UJ	5.0 U/UJ
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Acetone	µg/l	6,300	20 U	20 U	NS	20 U	20 U	NS	NS	200 U	20 U
Benzene	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	*50 U*	5.0 U
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
Bromomethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Carbon disulfide	µg/l	700	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	*50 U*	5.0 U
Chlorobenzene	µg/l	100	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
Chloromethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	5.0 U	5.0 U	NS	5.0 U	**4.9 J**	NS	NS	**2,300**	**1.5 J**
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
Cyclohexane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Dibromochloromethane	µg/l	140	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Methyl acetate	µg/l	--	25 U	25 U	NS	25 U	25 U	NS	NS	250 U	25 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Methylene chloride	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	*50 U*	5.0 U
Styrene	µg/l	100	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Tetrachloroethene	µg/l	5	5.0 U	**9.9**	NS	**11**	5.0 U	NS	NS	*50 U*	5.0 U
Toluene	µg/l	1,000	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	5.0 U	NS	5.0 U	**4.4 J**	NS	NS	**7.9 J**	5.0 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
Trichloroethene	µg/l	5	**2.2 J**	5.0 U	NS	**87**	**3.2 J**	NS	NS	**26 J**	5.0 U
Trichlorofluoromethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	NS	NS	50 U	5.0 U
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	NS	NS	*50 U*	*5.0 U*
Xylenes, Total	µg/l	10,000	10 U	10 U	NS	10 U	10 U	NS	NS	100 U	10 U

Notes:

-- - Indicates there is no established screening criteria for this compound.

Bold - Indicates a detection of the noted compound.

Highlighted result is above IEPA Class I groundwater standard.

IEPA - Illinois Environmental Protection Agency

Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.

Italicized - Indicates that the reporting limit is above Class I groundwater standard.

µg/l - Micrograms per liter

NS - Not sampled in June 2013

VOCs - Volatile organic compounds

Qualifiers:

* - LCS or LCSD exceeds the control limits.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

U - Compound not detected.

UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

X/ - Data qualifier added by laboratory.

/X - Data qualifier added by data validator.

JEF/CRS/DPP/PJV

P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\Table 3A_MW Results_Jun13\MW VOC Results_Jun13

Table 3A
Groundwater Sample Results - June 2013
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-DUP02-2013A (Duplicate of GW-MW9-2013A)	GW-MW10-2013A	GW-G101D-2013A	GW-G104S-2013A	GW-G104D-2013A	GW-G105S-2013A	GW-G105D-2013A	GW-DUP01-2013A (Duplicate of GW-G105D-2013A)
VOCs (SW846 8260B)			6/11/2013	NS	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013	6/11/2013
1,1,1-Trichloroethane	µg/l	200	5.0 U	NS	5.0 U	5.0 U	5.0 U	**1.2 J**	**260**	**200**
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
1,1-Dichloroethane	µg/l	700	5.0 U	NS	5.0 U	5.0 U	5.0 U	**1.3 J**	**68**	**58**
1,1-Dichloroethene	µg/l	7	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**360**	**250**
1,2,4-Trichlorobenzene	µg/l	70	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
1,2-Dichloroethane	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
1,2-Dichloropropane	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
1,3-Dichlorobenzene	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
2-Butanone (MEK)	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
2-Hexanone	µg/l	--	5.0 U*/UJ	NS	5.0 U/UJ	5.0 U/UJ	5.0 U/UJ	5.0 U/UJ	35 U*/UJ	35 U*/UJ
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Acetone	µg/l	6,300	20 U	NS	20 U	20 U	20 U	20 U	140 U	140 U
Benzene	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
Bromodichloromethane	µg/l	0.2	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
Bromoform	µg/l	1	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
Bromomethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Carbon disulfide	µg/l	700	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Carbon tetrachloride	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
Chlorobenzene	µg/l	100	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Chloroethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Chloroform	µg/l	0.2	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
Chloromethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
cis-1,2-Dichloroethene	µg/l	70	**1.2 J/J**	NS	5.0 U	5.0 U	5.0 U	5.0 U	**18 J**	**16 J**
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
Cyclohexane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Dibromochloromethane	µg/l	140	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Dichlorodifluoromethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Ethylbenzene	µg/l	700	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Methyl acetate	µg/l	--	25 U	NS	25 U	25 U	25 U	25 U	180 U	180 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Methylcyclohexane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Methylene chloride	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
Styrene	µg/l	100	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Tetrachloroethene	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	*35 U*	*35 U*
Toluene	µg/l	1,000	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
Trichloroethene	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**210**	**180**
Trichlorofluoromethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	35 U	35 U
Vinyl chloride	µg/l	2	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	*5.0 U*	*35 U*	*35 U*
Xylenes, Total	µg/l	10,000	10 U	NS	10 U	10 U	10 U	10 U	70 U	70 U

Notes:

-- - Indicates there is no established screening criteria for this compound.

Bold - Indicates a detection of the noted compound.

Highlighted result is above IEPA Class I groundwater standard.

IEPA - Illinois Environmental Protection Agency

Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.

Italicized - Indicates that the reporting limit is above Class I groundwater standard.

µg/l - Micrograms per liter

NS - Not sampled in June 2013

VOCs - Volatile organic compounds

Qualifiers:

* - LCS or LCSD exceeds the control limits.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

U - Compound not detected.

UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

X / - Data qualifier added by laboratory.

/*X* - Data qualifier added by data validator.

JEF/CRS/DPP/PJV
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\Table 3A_MW Results_Jun13\MW VOC Results_Jun13

Table 3B
Groundwater Sample Results - September 2013
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW1-LD-2013B	GW-MW2-UD-2013B	GW-MW3-UD-2013B	GW-MW4-LS-2013B	GW-DUP02-2013B (Duplicate of GW-MW4-LS-2013B)	GW-MW4-UD-2013B	GW-MW5-LS-2013B	GW-MW7-LS-2013B	GW-MW8-LS-2013B
VOCs (SW846 8260B)			9/25/2013	9/25/2013	NS	9/25/2013	9/25/2013	9/25/2013	NS	NS	9/25/2013
1,1,1-Trichloroethane	µg/l	200	5.0 U	5.0 U	NS	**2.4 J**	**3.3 J**	5.0 U	NS	NS	100 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
1,1-Dichloroethane	µg/l	700	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
1,1-Dichloroethene	µg/l	7	5.0 U	5.0 U	NS	**1.7 J**	**2.3 J**	5.0 U	NS	NS	**71 J**
1,2,4-Trichlorobenzene	µg/l	70	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
1,2-Dibromo-3-chloropropane	µg/l	0.2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
1,2-Dichlorobenzene	µg/l	600	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
1,2-Dichloroethane	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
1,2-Dichloropropane	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Acetone	µg/l	6,300	20 U	20 U	NS	20 U	20 U	20 U	NS	NS	400 U
Benzene	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
Bromodichloromethane	µg/l	0.2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
Bromoform	µg/l	1	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
Bromomethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Carbon disulfide	µg/l	700	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Carbon tetrachloride	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
Chlorobenzene	µg/l	100	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Chloroethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Chloroform	µg/l	0.2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
Chloromethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
cis-1,2-Dichloroethene	µg/l	70	5.0 U	5.0 U	NS	5.0 U	**0.8 J**	**5.4**	NS	NS	**1,400**
cis-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
Cyclohexane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Dibromochloromethane	µg/l	140	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Dichlorodifluoromethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Ethylbenzene	µg/l	700	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Methyl acetate	µg/l	--	25 U	25 U	NS	25 U	25 U	25 U	NS	NS	500 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Methylene chloride	µg/l	5	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	*100 U*
Styrene	µg/l	100	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Tetrachloroethene	µg/l	5	5.0 U	**8.5**	NS	**13**	**19**	5.0 U	NS	NS	*100 U*
Toluene	µg/l	1,000	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	5.0 U	NS	5.0 U	5.0 U	**4.9 J**	NS	NS	100 U
trans-1,3-Dichloropropene	µg/l	1	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
Trichloroethene	µg/l	5	**1.9 J**	5.0 U	NS	**130**	**130**	**3.6 J**	NS	NS	**180**
Trichlorofluoromethane	µg/l	--	5.0 U	5.0 U	NS	5.0 U	5.0 U	5.0 U	NS	NS	100 U
Vinyl chloride	µg/l	2	*5.0 U*	*5.0 U*	NS	*5.0 U*	*5.0 U*	*5.0 U*	NS	NS	*100 U*
Xylenes, Total	µg/l	10,000	10 U	10 U	NS	10 U	10 U	10 U	NS	NS	200 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
µg/l - Micrograms per liter
NS - Not sampled in September 2013
VOCs - Volatile organic compounds

Qualifiers:
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U - Compound not detected.
X1 - Data qualifier added by laboratory.
IX - Data qualifier added by data validator.

Table 3B
Groundwater Sample Results - September 2013
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW9-2013B	GW-MW10-2013B	GW-G101D-2013B	GW-G104S-2013B	GW-G104D-2013B	GW-G105S-2013B	GW-G105D-2013B	GW-DUP01-2013B (Duplicate of GW-G105D-2013B)
VOCs (SW846 8260B)			9/25/2013	NS	9/25/2013	9/25/2013	9/25/2013	9/25/2013	9/25/2013	9/25/2013
1,1,1-Trichloroethane	µg/l	200	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**87**	**64**
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,1,2-Trichloroethane	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,1-Dichloroethane	µg/l	700	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**78**	**66**
1,1-Dichloroethene	µg/l	7	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**490**	**320**
1,2,4-Trichlorobenzene	µg/l	70	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,2-Dibromoethane (EDB)	µg/l	0.05	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,2-Dichlorobenzene	µg/l	600	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,2-Dichloroethane	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,2-Dichloropropane	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
1,4-Dichlorobenzene	µg/l	75	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
2-Butanone (MEK)	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
2-Hexanone	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	**0.82 J**	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Acetone	µg/l	6,300	20 U	NS	20 U	20 U	20 U	20 U	160 U	100 U
Benzene	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Bromodichloromethane	µg/l	0.2	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Bromoform	µg/l	1	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Bromomethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Carbon disulfide	µg/l	700	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Carbon tetrachloride	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Chlorobenzene	µg/l	100	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Chloroethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Chloroform	µg/l	0.2	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Chloromethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
cis-1,2-Dichloroethene	µg/l	70	**2.0 J**	NS	**0.98 J**	5.0 U	5.0 U	5.0 U	**19 J**	**17 J**
cis-1,3-Dichloropropene	µg/l	1	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Cyclohexane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Dibromochloromethane	µg/l	140	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Dichlorodifluoromethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Ethylbenzene	µg/l	700	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Isopropylbenzene (Cumene)	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Methyl acetate	µg/l	--	25 U	NS	25 U	25 U	25 U	25 U	200 U	130 U
Methyl-tert-butyl ether	µg/l	70	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Methylcyclohexane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Methylene chloride	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Styrene	µg/l	100	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Tetrachloroethene	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Toluene	µg/l	1,000	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
trans-1,2-Dichloroethene	µg/l	100	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
trans-1,3-Dichloropropene	µg/l	1	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Trichloroethene	µg/l	5	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**170**	**130**
Trichlorofluoromethane	µg/l	--	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	40 U	25 U
Vinyl chloride	µg/l	2	5.0 U	NS	5.0 U	5.0 U	5.0 U	5.0 U	**18 J**	**14 J**
Xylenes, Total	µg/l	10,000	10 U	NS	10 U	10 U	10 U	10 U	80 U	50 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
µg/l - Micrograms per liter
NS - Not sampled in September 2013
VOCs - Volatile organic compounds

Qualifiers:
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U - Compound not detected.
X/ - Data qualifier added by laboratory.
/X - Data qualifier added by data validator.

Table 3C
Groundwater Sample Results - February 2014
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW1-LD-2014A	GW-MW2-UD-2014A	GW-MW3-UD-2014A	GW-MW4-LS-2014A	GW-DUP01-2014A (Duplicate of GW-MW4-LS-2014A)	GW-MW4-UD-2014A	GW-MW5-LS-2014A	GW-MW7-LS-2014A	GW-MW8-LS-2014A
VOCs (SW846 8260B)			2/13/2013	2/13/2014	NS	2/13/2014	2/13/2014	2/13/2014	NS	2/13/2014	2/13/2014
1,1,1-Trichloroethane	µg/l	200	0.53 J	1.0 U	NS	5.0 U	2.1 J	0.73 J	NS	110 J	200 U
1,1,2,2-Tetrachloroethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,1,2-Trichloroethane	µg/l	5	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,1-Dichloroethane	µg/l	700	1.2	1.0 U	NS	5.0 U	5.0 U	0.30 J	NS	130 U	38 J
1,1-Dichloroethene	µg/l	7	1.8	1.0 U	NS	1.7 J	5.0 U	1.2	NS	110 J	92 J
1,2,4-Trichlorobenzene	µg/l	70	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,2-Dibromoethane (EDB)	µg/l	0.05	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,2-Dichlorobenzene	µg/l	600	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,2-Dichloroethane	µg/l	5	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,2-Dichloropropane	µg/l	5	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,3-Dichlorobenzene	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
1,4-Dichlorobenzene	µg/l	75	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
2-Butanone (MEK)	µg/l	--	5.0 U	1.8 J	NS	25 U	25 U	5.0 U	NS	130 U	1,000 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	NS	25 U	25 U	5.0 U	NS	130 U	1,000 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	NS	25 U	25 U	5.0 U	NS	130 U	1,000 U
Acetone	µg/l	6,300	5.9	12	NS	25 U	25 U	5.3	NS	130 U	1,000 U
Benzene	µg/l	5	0.31 J	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Bromodichloromethane	µg/l	0.2	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Bromoform	µg/l	1	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Bromomethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Carbon disulfide	µg/l	700	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Carbon tetrachloride	µg/l	5	1.0 U	0.40 J	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Chlorobenzene	µg/l	100	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Chloroethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Chloroform	µg/l	0.2	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Chloromethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
cis-1,2-Dichloroethene	µg/l	70	1.0 U	1.0 U	NS	5.0 U	5.0 U	6.7	NS	130 U	3,000
cis-1,3-Dichloropropene	µg/l	1	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Cyclohexane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Dibromochloromethane	µg/l	140	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Dichlorodifluoromethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Ethylbenzene	µg/l	700	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Isopropylbenzene (Cumene)	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Methyl acetate	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Methyl-tert-butyl ether	µg/l	70	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Methylcyclohexane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Methylene chloride	µg/l	5	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Styrene	µg/l	100	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Tetrachloroethene	µg/l	5	1.0 U	13	NS	18	15	0.55 J	NS	130 U	200 U
Toluene	µg/l	1,000	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
trans-1,2-Dichloroethene	µg/l	100	1.0 U	1.0 U	NS	5.0 U	5.0 U	6.8	NS	130 U	200 U
trans-1,3-Dichloropropene	µg/l	1	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Trichloroethene	µg/l	5	3.9	0.24 J	NS	110	96	4.0	NS	1,800	460
Trichlorofluoromethane	µg/l	--	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	200 U
Vinyl chloride	µg/l	2	1.0 U	1.0 U	NS	5.0 U	5.0 U	1.0 U	NS	130 U	52 J
Xylenes, Total	µg/l	10,000	3.0 U	3.0 U	NS	15 U	15 U	3.0 U	NS	380 U	600 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
µg/l - Micrograms per liter
VOCs - Volatile organic compounds

Qualifiers:
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U - Compound not detected.
X / - Data qualifier added by laboratory.
/X - Data qualifier added by data validator.

Table 3C
Groundwater Sample Results - February 2014
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-MW9-2014A	GW-MW10-2014A	GW-MW11-2014A	GW-MW11-LS-2014A	GW-MW12-2014A	GW-MW12-LS-2014A	GW-MW13-2014A	GW-MW13-LS-2014A
VOCs (SW846 8260B)			2/13/2014	2/13/2014	2/13/2014	2/13/2014	2/13/2014	2/13/2014	2/13/2014	2/13/2014
1,1,1-Trichloroethane	µg/l	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/l	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/l	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/l	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*
1,2-Dichlorobenzene	µg/l	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/l	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (MEK)	µg/l	--	5.0 U	5.0 U	**1.9 J**	**1.0 J**	**0.65 J**	**0.80 J**	**0.75 J**	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	6,300	**3.9 J**	**4.4 J**	**15**	**7.4**	**3.3 J**	**5.1**	**5.0**	**4.3 J**
Benzene	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	**0.15 J**	**0.23 J**	**0.22 J**	**0.63 J**
Bromodichloromethane	µg/l	0.2	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*
Bromoform	µg/l	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/l	700	1.0 U	1.0 U	1.0 U	1.0 U	**0.58 J**	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/l	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	µg/l	0.2	*1.0 U*	**0.21 J**	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	**0.19 J**
Chloromethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/l	70	**10**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/l	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/l	140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/l	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.30 J**
Isopropylbenzene (Cumene)	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl ether	µg/l	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/l	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/l	5	1.0 U	**0.26 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/l	1,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.32 J**	**0.82 J**	**9.9**
trans-1,2-Dichloroethene	µg/l	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/l	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/l	2	**2.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	µg/l	10,000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	**0.91 J**

Notes:

-- - Indicates there is no established screening criteria for this compound.

Bold - Indicates a detection of the noted compound.

Highlighted result is above IEPA Class I groundwater standard.

Italicized - Indicates that the reporting limit is above Class I groundwater standard.

IEPA - Illinois Environmental Protection Agency

Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.

µg/l - Micrograms per liter

VOCs - Volatile organic compounds

Qualifiers:

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

U - Compound not detected.

X / - Data qualifier added by laboratory.

/*X* - Data qualifier added by data validator.

JEF/MSB/PJV
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.12 FSI Addendum\Tables\Table 3C_MW Results_Feb14\MW VOC Results_Feb14

Table 3C
Groundwater Sample Results - February 2014
GE Morrison Facility
Morrison, Illinois

Compound	Units	IEPA Class I Groundwater Standard	GW-G101D-2014A	GW-G104S-2014A	GW-G104D-2014A	GW-G105S-2014A	GW-G105D-2014A	GW-DUP02-2014A (Duplicate of GW-G105D-2014A)
VOCs (SW846 8260B)			2/13/2014	2/13/2014	2/13/2014	2/13/2014	2/13/2014	2/13/2014
1,1,1-Trichloroethane	µg/l	200	1.0 U	1.0 U	1.0 U	**2.7**	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	700	1.0 U	1.0 U	1.0 U	**1.0**	**52**	**50**
1,1-Dichloroethene	µg/l	7	1.0 U	1.0 U	1.0 U	1.0 U	**100**	**90**
1,2,4-Trichlorobenzene	µg/l	70	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	0.2	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*5.0 U*	*5.0 U*
1,2-Dibromoethane (EDB)	µg/l	0.05	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*5.0 U*	*5.0 U*
1,2-Dichlorobenzene	µg/l	600	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	**4.1 J**	**4.3 J**
1,2-Dichloropropane	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	75	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	--	**1.5 J**	**1.9 J**	**1.2 J**	**1.1 J**	25 U	25 U
2-Hexanone	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U
Acetone	µg/l	6,300	**9.0**	**12**	**6.8**	**5.8**	25 U	25 U
Benzene	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	0.2	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*5.0 U*	*5.0 U*
Bromoform	µg/l	1	1.0 U	1.0 U	1.0 U	1.0 U	*5.0 U*	*5.0 U*
Bromomethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Carbon disulfide	µg/l	700	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	100	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Chloroform	µg/l	0.2	*1.0 U*	*1.0 U*	*1.0 U*	*1.0 U*	*5.0 U*	*5.0 U*
Chloromethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	70	**1.1**	1.0 U	1.0 U	1.0 U	**14**	**13**
cis-1,3-Dichloropropene	µg/l	1	1.0 U	1.0 U	1.0 U	1.0 U	*5.0 U*	*5.0 U*
Cyclohexane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/l	140	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	700	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methyl acetate	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	70	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methylene chloride	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	**3.5 J**	5.0 U
Styrene	µg/l	100	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	5	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Toluene	µg/l	1,000	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	100	**0.38 J**	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	1	1.0 U	1.0 U	1.0 U	1.0 U	*5.0 U*	*5.0 U*
Trichloroethene	µg/l	5	**0.20 J**	1.0 U	**0.57 J**	**0.60 J**	**23**	**23**
Trichlorofluoromethane	µg/l	--	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Vinyl chloride	µg/l	2	**0.48 J**	1.0 U	1.0 U	1.0 U	**8.7**	**7.7**
Xylenes, Total	µg/l	10,000	3.0 U	3.0 U	3.0 U	3.0 U	15 U	15 U

Notes:
-- - Indicates there is no established screening criteria for this compound.
Bold - Indicates a detection of the noted compound.
Highlighted result is above IEPA Class I groundwater standard.
Italicized - Indicates that the reporting limit is above Class I groundwater standard.
IEPA - Illinois Environmental Protection Agency
Class I Groundwater Standard - 35 Illinois Administrative Code Part 742, Appendix B, Table E.
µg/l - Micrograms per liter
VOCs - Volatile organic compounds

Qualifiers:
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U - Compound not detected.
X/ - Data qualifier added by laboratory.
/X - Data qualifier added by data validator.

Exhibit 9

MWH's Letter Responding to the IEPA's Comments on the FSI Addendum Report (dated October 24, 2014)

MWH

BUILDING A BETTER WORLD

October 22, 2014

Mr. Lewis Streeter
319 Great Oaks Blvd
Albany, NY 12203

Re: **Response to IEPA Comments**
Focused Site Investigation Addendum Report
Former GE Morrison Facility, Morrison, Illinois

Dear Mr. Streeter:

The Focused Site Investigation (FSI) Addendum Report (MWH, 2014) was submitted to the Illinois Environmental Protection Agency (IEPA) on May 15, 2014. In a letter dated August 14, 2014, the IEPA provided review comments on the FSI Addendum, and requested a response to those comments. The following are responses to those comments.

***IEPA Comment 1:* Pages 1-1, 1-2 (Executive Summary), Page 5-3, Page 5-8 and Page 6-1 (Conclusion): A statement is needed regarding a qualification of the Conceptual Site Model (CSM). The report states that, according to the CSM, Rock Creek is a groundwater divide and discharge point for contaminants from the GE facility. Although the potentiometric data from area monitoring wells indicated the prevailing groundwater gradient is toward Rock Creek, the fact that trichloroethylene was detected in the south golf course irrigation well indicates that contaminants can migrate beyond Rock Creek under the influence of pumping at the well. A discussion regarding the irrigation well and its influence needs to be included with discussions of the CSM and conclusions at the site to complete the record.**

***IEPA Comment 3:* Page 5-3 (Conceptual Site Model): A clarification is needed regarding the flow of groundwater and contaminants beneath Rock Creek. Figure 5 and physical laws indicate that the groundwater cannot continue to flow into the sand and gravel 100 feet below the creek and become "immobile" there in a "zone of stagnation." The groundwater is not compressible, and must flow out of the sand and gravel as any open system must function. If the groundwater does not discharge to Rock Creek, it must flow downstream beneath the creek, described as a potential action.**

Response to IEPA Comments 1 and 3: IEPA's comments raise a number of items regarding the Conceptual Site Model (CSM) for the site and the need for further supporting information on those items. In order to provide that supporting information, the underlying physical, hydraulic, and chemical data have been summarized in this response to comments. The following items are addressed in the response below:

- Further explanation of Rock Creek's role as a groundwater divide.
- Explanation of the zone of stagnation.

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- Clarification of the distribution of volatile organic compound (VOC) concentrations in the groundwater, particularly in the zone of stagnation.
- Quantification of the potential groundwater flow zone along the axis of Rock Creek, 100 feet below the creek.
- Explanation for the trichloroethene (TCE) detection in the south irrigation well.

Hydraulic Conductivity Values for Site Hydrostratigraphic Units

Aquifer testing was not performed as part of the FSI. However, GeoTrans, Inc. (GeoTrans) performed aquifer testing and groundwater modeling as part of a natural attenuation analysis study conducted at the site. To update the CSM for the FSI, MWH Americas, Inc. (MWH) used the hydraulic conductivities (K-values) reported in the GeoTrans, Inc. Natural Attenuation Analysis and Groundwater Modeling Report (GeoTrans, 2001).

GeoTrans identified four hydrostratigraphic units in their report, and derived K-values for the units by performing slug tests and single well pumping tests. The results of their analysis for each aquifer test are shown on Table 3-2 and an average K-value for each hydrostratigraphic unit is shown on page 25. Those results are presented below.

Table 1. K-Values for Hydrostratigraphic Units

Hydrostratigraphic Unit		Description	Hydraulic Conductivity	
1	Upland Deposits	Fine-grained Alluvium	2.10E-05	cm/sec
2	Lowland Deposits/Transitional Zone	Sand, Gravel, Weathered Bedrock	1.30E-03	cm/sec
3	Upper Dolomite	Weathered Bedrock	3.90E-04	cm/sec
4	Lower Dolomite	Competent Bedrock	5.30E-07	cm/sec

Note: cm/sec = centimeters per second

In the process of completing their evaluation of the groundwater flow regime, GeoTrans implemented and calibrated a numerical flow and transport model. Through the calibration process, GeoTrans derived modified estimates of the K-values believed to be reasonable for each hydrostratigraphic unit. These revised K-values were reported in Table 4-2 and on Figure 4-3 of Appendix G of their report. Note that GeoTrans reported K-values in units of cm/sec in the main report and in ft/day in the model documentation. For clarity, both units are listed in the following table.

Table 2. Calibrated K-Values for GeoTrans Model

Hydrostratigraphic Unit		Description	Hydraulic Conductivity			
1	Upland Till Deposits	Fine-grained Alluvium	2	ft/day	7.1E-04	cm/sec
2	Lowland Channel Deposits	Sand and Gravel	7	ft/day	2.5E-03	cm/sec
3	Upper Dolomite	Weathered Bedrock	14	ft/day	4.9E-03	cm/sec
4	Lower Dolomite	Competent Bedrock	0.085	ft/day	3.0E-05	cm/sec

Note: ft/day = feet per day

GeoTrans defined four hydrostratigraphic units in their report and groundwater model. MWH has refined the definitions of the geologic column and redefined the hydrostratigraphic units present at the site on the basis of several 100-foot deep boreholes and monitoring wells installed during the FSI. Table 3 is a tabulation that provides a correlation between the stratigraphic column defined by GeoTrans and the stratigraphic column refinement in the current CSM.

Table 3. Current Geologic Description for CSM

Geologic Description	GeoTrans Model		MWH Conceptual Site Model	
	Unit	Layer Name	Unit	Layer Name
Fine-grained Alluvium Glacial Till	1	Upland Deposits	1	Surficial Alluvium
Sand			2	Sand
Sand and Gravel	2	Lowland Channel Deposits Transitional Zone	3	Sand & Gravel
Weathered Bedrock	3	Upper Dolomite	4	Weathered Bedrock
Competent Bedrock	4	Lower Dolomite		

Based upon the borehole and monitoring well installation work during the FSI, the Weathered Bedrock layer and overlying Sand & Gravel act as a single hydrostratigraphic unit at the site and so throughout the remainder of this response-to-comment document, the term "Bedrock Interface Zone" refers to them as a single hydrostratigraphic unit.

Calculation of Horizontal Gradient

The horizontal hydraulic gradient between the GE facility and Rock Creek drives the groundwater and migration of VOCs at the site. The gradient was calculated using groundwater elevations collected at monitoring wells MW4-UD near the building and MW8-LS near Rock Creek. The following is a tabulation of water elevations and calculated horizontal gradients for six sets of water level measurements during the FSI.

Table 4. Groundwater Gradient Calculation

Date	High (ft amsl)	Low (ft amsl)	*dh* (ft)	*ds* (ft)	grad *h* = *dh/ds*
1/12/2012	625.16	623.07	2.09	1400	0.001492857
8/08/2012	622.94	621.01	1.93	1400	0.001378571
5/13/2013	625.81	623.52	2.29	1400	0.001635714
9/04/2013	622.75	620.74	2.01	1400	0.001435714
1/30/2014	622.68	620.81	1.87	1400	0.001335714
4/08/2014	623.73	621.88	1.85	1400	0.001321429
				Average	**0.001433333**

Notes:
amsl = above mean sea level
dh = difference in potentiometric surface elevation between MW4-UD and MW8-LS
ds = distance measured parallel to grad h
grad *h* = gradient calculated between MW4-UD (high) and MW8-LS (low)

As shown above, the average gradient (i) between the GE facility and Rock Creek is 0.0014 ft/ft. This value is used to calculate migration rates and groundwater flux in the following sections.

Surface Water and Groundwater Elevations Adjacent to Rock Creek

Rock Creek is a "sink", the zone of lowest groundwater elevation and potentiometric pressure in the groundwater basin. Table 5 is a tabulation of the groundwater elevation measured at the MW8-LS/MW9 well nest and the surface water elevations collected simultaneously nearby in Rock Creek during 2012, 2013 and 2014.

Table 5. Surface Water and Groundwater Elevations

Date	Surface Water Rock Creek Near MW8-LS	Water Table Well MW9	Deep Well MW8-LS
1/12/2012	NM	NA	623.07
8/8/2012	NM	615.97	621.01
5/13/2013	615.60	618.87	623.52
9/4/2013	614.58	616.60	620.74
1/30/2014	NM	616.40	620.81
4/8/2014	615.14	618.28	621.88

Note:
Mean sea level datum used for water elevations
NA = not available, MW9 did not exist
NM = not measured

These water levels provide the basic documentation of the existence of the divide along the axis of Rock Creek.

Groundwater Elevations in Deep Sand and Gravel Aquifer along Rock Creek

Groundwater flow converges toward Rock Creek from both the north and south side of the creek. The majority of the groundwater flow occurs in the Bedrock Interface Zone. This was called the "transition unit" in the GeoTrans report.

The upper boundary of the Bedrock Interface Zone is 60 to 70 feet below Rock Creek. The layers below the creek, but above the Bedrock Interface Zone, consist of finer-grained deposits with lower permeability. As stated in the FSI Addendum, these deposits inhibit (but do not eliminate) upward migration to discharge into Rock Creek.

Groundwater also flows horizontally to the east in the Bedrock Interface Zone along the axis of the creek, 60-100 feet below the creek bottom. The flow is driven by a small gradient, which is documented by the difference in groundwater elevations between monitoring wells MW7-LS and MW8-LS. The groundwater elevations tabulated below are used to calculate the gradient along the axis of the creek, in the Bedrock Interface Zone.

Table 6. Groundwater Gradient along Axis of Rock Creek

Date	MW7-LS (ft amsl)	MW8-LS (ft amsl)	*dh* (ft)	*ds* (ft)	grad *h = dh/ds*
1/12/2012	623.12	623.07	0.05	884	0.000057
8/8/2012	621.09	621.01	0.08	884	0.000090
1/30/2014	620.90	620.81	0.09	884	0.00010
4/8/2014	622.05	621.88	0.17	884	0.00019
				AVERAGE	**0.00011**

Note: Gradient calculated between monitoring wells MW7-LS (high) and MW8-LS (low)

As shown in Table 6, the average gradient in the Bedrock Interface Zone along the axis of Rock Creek is 0.0011 ft/ft.

Calculation of Average Groundwater Seepage Velocity in Each Stratigraphic Unit

Table 7 lists the variables needed to calculate groundwater seepage velocity in each of the four hydrostratigraphic units. The top half uses the K-values listed on page 25 of the 2001 GeoTrans Report. The bottom half uses the modified K-values derived from the GeoTrans model-calibration.

Table 7. Groundwater Seepage Velocity Calculation

Flow Zone	Hydrostratigraphic Unit	i Gradient ft/ft	K Hydraulic Conductivity cm/sec	ft/day	N Porosity ft/ft	Seepage Velocity (V) cm/sec	ft/day	ft/year
1	Surficial Alluvium(1)	0.0014	2.1E-05	6.0E-02	0.30	9.8E-08	2.8E-04	**0.10**
2	Sand(2)	0.0014	1.5E-04	4.3E-01	0.25	8.4E-07	2.4E-03	**0.87**
3	Sand & Gravel	0.0014	1.3E-03	3.7E+00	0.20	9.1E-06	2.6E-02	**9.4**
4	Weathered Bedrock	0.0014	3.9E-04	1.1E+00	0.20	2.7E-06	7.7E-03	**2.8**
Flow Zone	**Hydrostratigraphic Unit**	**Gradient ft/ft**	**Hydraulic Conductivity cm/sec**	**ft/day**	**Porosity ft/ft**	**Seepage Velocity (V) cm/sec**	**ft/day**	**ft/year**
1	Surficial Alluvium(1)	0.0014	7.1E-04	2.0E+00	0.30	3.3E-06	9.4E-03	**3**
2	Sand(2)	0.0014	1.3E-03	3.8E+00	0.25	7.5E-06	2.1E-02	**8**
3	Sand & Gravel	0.0014	2.5E-03	7.1E+00	0.20	1.8E-05	5.0E-02	**18**
4	Weathered Bedrock	0.0014	4.9E-03	1.4E+01	0.20	3.4E-05	9.7E-02	**36**

Notes:

V = Ki/n

Surficial Alluvium(1) - GeoTrans used the different terms including upland deposits, till, and alluvium in the 2001 Report. MWH elects to use the simplified term "Surficial Alluvium" to reference the upper fine-grained deposits.

Sand(2) - GeoTrans did not identify or conduct slug tests on the sand unit. The value provide in these tables is the geometric mean between the surficial alluvium and the sand & gravel units.

The GeoTrans model-calibration-derived K-values provide a better match to the data, reflecting the existence of VOCs in the aquifer near the creek. Based on the distance to the creek (1,400 feet) and the fact that solvent usage began 50-60 years ago, the K-values in the range of 30 ft/year from the model-calibration in the lower tabulation (shaded) are supported by the data collected from MW7-LS and MW8-LS, are the most representative of the site, and are used in the refinement of the CSM.

Calculation of Groundwater Flow Volume from GE Facility to Rock Creek

The volume of groundwater migrating from the GE facility toward Rock Creek is calculated using the physical and hydraulic characteristics detailed in the previous tables. The total volume of groundwater flow is calculated as a volume per unit of time (e.g. gallons per minute or cubic feet per second). One of the objectives for the CSM is to compare the volume of groundwater seeping into Rock Creek with the total volume of surface water flowing along the creek.

The volume of groundwater flow seeping into Rock Creek is proportional to the length of the reach over which the seepage occurs. Groundwater flows from the GE facility, south to Rock Creek. The GE facility extends approximately 1,000 feet west to east. To provide a basis for comparing groundwater flow volume to surface water flow volume, groundwater flow is calculated through a 1,000 foot wide flow path between the facility and the creek.

In the following table, the discharge rate is standardized to the units of cubic feet per day, a unit that will also be used in calculating stream discharge.

Table 8. Calculation of Groundwater Flow Volume into Rock Creek

Flow Zone	Hydrostratigraphic Unit	W Width (ft)	T (b) Thickness (ft)	i Gradient (ft/ft)	K Hydraulic Conductivity		Q Flux ft^3/day
					cm/sec	ft/day	
1	Surficial Alluvium	1,000	40	0.0014	7.1E-04	2	112
2	Intermediate Sand	1,000	30	0.0014	1.3E-03	3.8	160
3	Sand & Gravel	1,000	30	0.0014	2.5E-03	7.1	298
4	Weathered Bedrock	1,000	20	0.0014	4.9E-03	14	392
Total thickness of groundwater flow zone			120	Total groundwater volume discharging to Rock Creek from north side (along 1,000 foot creek reach)			**962**

Notes:
The letter commonly used for the thickness of a transmissive zone in an aquifer is "b".
Q = KiA
ft^3/day = cubic feet per day
Q = discharge flux

Stream Discharge Record for Rock Creek Collected by USGS

Exhibit A is a listing of over 13 years of stream flow data collected by the United States Geologic Survey (USGS) on Rock Creek, less than a mile downstream from the study area. The figure attached to the table shows the location of the gauging station with respect to the study area. USGS recorded daily stream discharge in Rock Creek from April 1940 to September 1944 and from October 1977 until September 1986. The full data set consists of 4,200 data points. The full data listing is available from MWH by request.

Basic statistics of the data are listed in the yellow shaded area at the top of the table and a flow frequency histogram is plotted to the right. Relevant statistical measures for the data are:

Number of Data Points	4,200
Average Flow	120 cfs
Median Flow	75 cfs
Mode Flow Value	50 cfs
Standard Deviation	174
Minimum Flow	7.4 cfs
Maximum Flow	2060 cfs

Note: cfs = cubic feet per second

GeoTrans conducted five stream flow gauging events at four stations along Rock Creek in 1999. The results of the gauging events are provided in Table 2-6 of the GeoTrans Report. GeoTrans recorded similar Rock Creek stream discharge rates (between 41 and 358 cfs). The USGS gauging station is downstream of the City of Morrison Waste Water Treatment Plant; however, GeoTrans staff gage locations were along Rock Creek down gradient from the GE facility (Figure 1-2 of the GeoTrans Report). GeoTrans gauging results are consistent with the USGS database.

The histogram plot of the data on the right side of Exhibit A shows an approximately normal distribution, skewed to flow rates higher than the average. The <u>*mode*</u> is the discharge rate that occurs most often in the data set, and so it is perhaps a better representation of the expected discharge down the creek on a daily basis than the calculated <u>*average*</u> flow. The average flow rate is skewed to 120 cfs, but that average represents the fact that very high surface water flows occur for short periods of time, after major precipitation events. 120 cfs is not the most common discharge volume along the creek.

The mode, the Rock Creek discharge most often detected during 13.5 years of gauging is 50 cfs. The following calculation shows that 50 cfs is equivalent to more than 4 million cubic feet of water per day, flowing past the site on a typical day.

50 cfs x 60 seconds/minute x 60 minutes/hour x 24 hours per day = 4,320,000 ft^3/day

The ratio of groundwater discharging into Rock Creek to the total surface water discharge along Rock Creek can be calculated by dividing the groundwater discharging to the creek by the surface water discharge along the creek.

$$962\ ft^3/day \div 4{,}320{,}000\ ft^3/day = 0.00022$$

By inverting this ratio of groundwater to surface water discharge volumes, we can estimate that 1 cubic foot of groundwater enters the creek, along the 1000 foot long stretch of the creek downhill from the GE facility, for every 4,500 cubic feet of water that flows along the creek past the GE facility.

Calculation of Groundwater Seepage Velocity in the Bedrock Interface Zone

The gradient along the west-east axis of Rock Creek was calculated in Table 6 above. The calculation shows a slight gradient, 0.00011 ft/ft, in the Bedrock Interface Zone in the direction of stream flow (east). Using this gradient value, the groundwater seepage velocity is calculated below for both of the units that make up the Bedrock Interface Zone.

Table 9. Groundwater Seepage Velocity Calculation in Transition Zone along Axis of Rock Creek

Flow Zone	Hydrostratigraphic Unit	i Gradient ft/ft	K Hyraulic Conductivity cm/sec	ft/day	N Porosity ft/ft	Seepage Velocity (V) cm/sec	ft/day	ft/year
3	Sand & Gravel	0.00011	2.5E-03	7.1E+00	0.20	1.4E-06	3.9E-03	**1.4**
4	Weathered Bedrock	0.00011	4.9E-03	1.4E+01	0.20	2.7E-06	7.6E-03	**2.8**

Calculation of Groundwater Flow Volume in the Bedrock Interface Zone

By calculating the cross sectional area through which the groundwater flows, the same gradient and K-values can be used to estimate the volume of water potentially migrating along the Bedrock Interface Zone parallel to the creek flow (Table 10).

Table 10. Calculation of Groundwater Flow Volume through Bedrock Interface Zone

Flow Zone	Hydrostratigraphic Unit	$W^{(1)}$ Width feet	T (b) Thickness feet	i Gradient ft/ft	K Hydraulic Conductivity cm/sec	K Hydraulic Conductivity ft/day	Q Flux ft^3/day
3	Sand & Gravel	100	30	0.00011	2.5E-03	7	**2.3**
4	Weathered Bedrock	100	20	0.00011	4.9E-03	14	**3.1**
	Total Thickness of groundwater flow zone		50	Total groundwater volume in transition zone discharging downstream along axis of Rock Creek			**5.4**

Notes:
Q = KiA, where A = W x b
$W^{(1)}$ = The width of the flow zone has been arbitrarily defined as 100 feet. If the total width of the zone is 50 feet, the total discharge would be decreased by 50%. If the total width of the zone is 200 feet, the total discharge would be doubled.

VOCs Detected in Monitoring Wells located near Rock Creek down gradient from GE Facility.

The FSI Report and the FSI Addendum showed the highest VOC concentrations in groundwater are detected in monitoring well MW8-LS, which is screened in the Bedrock Interface Zone beneath Rock Creek. The following table was developed to summarize the VOCs detected in monitoring wells directly down gradient from the GE facility, adjacent to Rock Creek. Monitoring well MW9 is screened in the upper water table zone and MW7-LS and MW8-LS are screened in the Bedrock Interface Zone. Monitoring well locations are shown on Exhibit B.

Table 11 lists the detected concentrations of nine chlorinated VOCs during the five sampling events between January 2012 and February 2014 at MW7-LS, MW8-LS, and MW9.

Table 11. Groundwater Sample Results near Rock Creek

Monitoring Well	Tier 1 GRO	Compound	Date				
			1/25/2012	8/23/2012	6/11/2013	9/25/2013	2/13/2014
MW7-LS	5	PCE	ND	ND	NS	NS	ND
	5	**TCE**	**480**	**2,700**	NS	NS	**1,800**
	7	**1,1-DCE**	**83**	**200**	NS	NS	**110**
	70	cis-1,2-DCE	4	ND	NS	NS	ND
	100	trans-1,2-DCE	ND	ND	NS	NS	ND
	2	VC	ND	ND	NS	NS	ND
	200	**1,1,1-TCA**	**56**	**220**	NS	NS	**110**
	5	1,1,2-TCA	ND	ND	NS	NS	ND
	700	1,1-DCA	8.4	ND	NS	NS	ND
MW8-LS	5	PCE	ND	ND	ND	ND	ND
	5	**TCE**	**4,800**	**2,000**	**26**	**180**	**460**
	7	**1,1-DCE**	**150**	**120**	**81**	**71**	**92**
	70	**cis-1,2-DCE**	**42**	**1,400**	**2300**	**1,400**	**3,000**
	100	trans-1,2-DCE	ND	ND	7.9	ND	ND
	2	VC	ND	ND	ND	ND	52
	200	1,1,1-TCA	ND	ND	ND	ND	ND
	5	1,1,2-TCA	ND	ND	ND	ND	ND
	700	**1,1-DCA**	**71**	**42**	**29**	**ND**	**38**
MW9	5	PCE	NA	ND	ND	ND	ND
	5	TCE	NA	ND	ND	ND	ND
	7	1,1-DCE	NA	ND	ND	ND	ND
	70	**cis-1,2-DCE**	NA	**4.4**	**1.5**	**2**	**10**
	100	trans-1,2-DCE	NA	ND	ND	ND	ND
	2	**VC**	NA	ND	ND	ND	**2.7**
	200	1,1,1-TCA	NA	ND	ND	ND	ND
	5	1,1,2-TCA	NA	ND	ND	ND	ND
	700	1,1-DCA	NA	ND	ND	ND	ND

Notes:
All concentrations reported in micrograms per liter (µg/L)
1,1,1-TCA = 1,1,1-trichloroethane
1,1,2-TCA =1,1,2-trichloroethane
1,1-DCA = 1,1-dichloroethane
1,1-DCE = 1,1-dichloroethene
Bold = detected compound, compounds detected above the GRO are shaded
cis-1.2-DCE = cis-1,2-dichloroethene
GRO = groundwater remediation objective
NA = not available, MW9 did not exist prior to August 2012 sampling event
ND = not detected
NS = not sampled
PCE = tetrachloroethane
trans-1,2-DCE = trans-1,2-dichloroethene
vc = vinyl chloride

Additional Detail for the CSM

A CSM was developed for the FSI Addendum to describe the groundwater flow regime in vicinity of the GE facility. That original CSM showed groundwater recharge areas on the uplands and the primary discharge area along Rock Creek. This is a typical groundwater flow regime for the temperate Midwest climate. Further information and detail in support of the CSM is provided below.

Exhibit B. Potentiometric Plot of the Bedrock Interface Zone

Exhibit B is a map view of the GE facility on the west side of Morrison. Water levels collected on April 8, 2014 were used to produce a potentiometric plot of the water levels in the Bedrock Interface Zone. As shown by the contour lines, water levels decline from about 623 feet amsl near the GE facility to 622 feet amsl near the north side of Rock Creek in the Bedrock Interface Zone.

The potentiometric pattern is similar on the south side of Rock Creek although the gradient is steeper. The blue arrows show the horizontal groundwater flow direction driven by the potentiometric distribution.

Water level measurements were collected on five other dates during the FSI. Potentiometric plots from those events consistently show that water levels are higher near the GE facility and lower at Rock Creek; conditions are the same on the south side of the creek. Surface water elevations were also measured in Rock Creek during three of those water level measurement events. The water elevations in Rock Creek and at nearby well nest MW8-LS/MW9 for those three dates are shown on Exhibit B. The following observations are made:

- The elevation of Rock Creek was approximately 615 feet amsl on all three dates.
- The groundwater elevation at water table well, MW9, was two to three feet higher than the creek level, indicating that the vertical groundwater gradient is upward and toward the creek.
- Groundwater elevations measured at MW8-LS (deep well) are consistently at least three feet higher than the water table and five feet higher than the creek elevation.
- Monitoring wells MW12 and MW13 on the south side of Rock Creek document a similar gradient toward the creek from the south side.

The groundwater elevations measured at the site document a strong inward gradient from both sides of the creek and an upward gradient into the creek from the Bedrock Interface Zone. These water elevations confirm that Rock Creek creates a divide.

Exhibit C. Potentiometric Plot on Cross Section

Exhibit C is a cross sectional view aligned north to south along the primary horizontal groundwater flow path. The hydraulic gradients in the vertical dimension are illustrated by plotting and contouring the surface water and groundwater levels on the cross sectional view.

Arrows drawn perpendicularly to contour lines show the vertical gradients that drive groundwater flow on both sides of Rock Creek. Exhibit B together with Exhibit C, confirm that Rock Creek creates a divide, with gradients driving groundwater flow from both sides and beneath Rock Creek, up into the creek.

Exhibit D. Geologic Cross Section

Hydraulic gradients drive groundwater from high potentiometric areas (high water level areas) toward areas of lower potentiometric pressure (as indicated by lower water levels). However the actual pathway followed by groundwater is controlled by the site stratigraphy. Groundwater flow tends to follow the paths of least resistance. More of the total groundwater flowing between high potential areas and low potential areas will flow through the highly permeable zones; less through the zones with low permeability.

Exhibit D is a geologic cross section, aligned along the same north to south flow path as Exhibit C. It shows that the stratigraphic units with the highest K-values, (the zones least resistant to groundwater flow) are the two layers that make up the Bedrock Interface Zone. These are layers 3 and 4, the sand and gravel and the weathered bedrock layers. The FSI Report provides an explanation of the origin of the stratigraphic succession.

Tables 1 and 2 include listings of the estimated hydraulic conductivity of each of the hydrostratigraphic units. Table 7 is arranged to provide the variables to calculate average groundwater seepage velocity in each hydrostratigraphic unit using the Darcy Equation. Using the updated K-values on the bottom half of Table 7, it is calculated that:

- Average groundwater seepage rate in the water table zone, in the surficial alluvium is on the order of 3 feet per year.
- Average groundwater seepage velocity in Layer 2 is 8 feet per year.
- Following the path of least resistance, groundwater seepage velocity is on the order of 20 to 40 feet per year in the Bedrock Interface Zone (Layers 3 and 4).

Table 8 is a tabulation of the variables used to calculate the volumetric flux of groundwater from the GE facility to Rock Creek. The contour lines on Exhibit C show the hydraulic gradient, which drives groundwater toward Rock Creek. The total groundwater flux depends upon the cross sectional area through which the ground water is flowing. The red lines on Exhibit B delineate a 1,000 foot wide flow path across an area where the water bearing units add up to a 120 foot thickness. Therefore, groundwater will flow through a cross section 120 feet x 1000 feet, or an area of 120,000 ft^2 between the GE facility and Rock Creek.

The final row in Table 8 lists the calculated volumetric flux of groundwater through a 1,000 foot wide flow path across all four stratigraphic units. While the spreadsheet calculation provides a flow volume estimated to three significant figures, in fact, it is unrealistic to calculate a flow volume to any more than a single significant figure. Therefore, it is acceptable to say that the flux from the facility to the creek is approximately 1,000 cubic feet per day through a 1,000-foot wide flow path from the north side.

Since Rock Creek creates a groundwater divide, we can conclude that an equal volume, (1,000 cubic feet per day) discharges to the creek from the south side along the same 1,000-foot stretch of the creek.

The blue arrows sketched on Exhibits A, C, and D converge toward the creek. The gradients coming toward the creek are equal and opposite and so they cancel each other out and there is a zone of zero horizontal gradient (in the north to south direction) in the Bedrock Interface Zone directly beneath the creek. Since the groundwater is incompressible at the pressures in this aquifer, the water seeks an alternate flow path. It follows the path of least resistance, which is upward to discharge into the creek.

While the north to south gradient is zero in the Bedrock Interface Zone, water level measurements at monitoring wells MW7-LS and MW8-LS document the existence of a slight gradient oriented west to east, along the axis of the creek. Water levels in MW8-LS are consistently slightly lower than in MW7-LS, which is located 900 feet upstream from MW8-LS.

The water levels collected between MW7-LS and MW8-LS are listed above on Table 6. The table also includes the calculated horizontal gradient between these two wells, which represents the gradient downstream along the axis of Rock Creek in the Bedrock Interface Zone. The average gradient is i = 0.00011 which is approximately 10 times less than the gradient toward the creek (i = 0.0014). Darcy's equation is used in Table 9 to derive the estimated groundwater flow velocity and in Table 10 to derive the groundwater flow volume west to east 100 feet beneath Rock Creek. The estimated flow volume in this zone is approximately five cubic feet per day , miniscule in comparison to the 2,000 cubic feet of groundwater (1,000 feet from each side) discharging upward into Rock Creek each day.

Mass Balance: Groundwater and Surface Water

The following is a Summary of the Groundwater / Surface Water Mass Balance from the calculations in the previous sections.

Component of Discharge (Q)	Discharge Rate	See Calculation
Typical Daily Surface Water Flow along Rock Creek past the GE Facility	4,000,000 ft^3/day	Page 7
Groundwater Seepage into Rock Creek from both sides, along a 1,000 foot reach of the creek	2,000 ft^3/day	Table 8
Groundwater flow horizontally along the axis of Rock Creek in the Bedrock Interface Zone	5 ft^3/day	Table 10

Note: Discharge rates rounded to one significant figure

The following relationships can be calculated from these values.

- 1 cubic foot of groundwater enters the creek along the 1,000-foot long stretch of Rock Creek downhill from the GE facility for every 4,500 cubic feet of water that flows in the creek.
- 1 cubic foot of groundwater migrates east per day in the Bedrock Interface Zone, for every 400 cubic feet of water that discharges upward into Rock Creek each day (along the 1,000 foot stretch of the creek).

Exhibit E. Conceptual Site Model (Revised)

Exhibit E is a qualitative representation of the groundwater flow regime in the vicinity of the site. The following observations are made of the revised CSM.

- The source of groundwater is precipitation that falls within the Rock Creek basin.
- Primary groundwater recharge occurs in the upland areas.
- Rock Creek, which is incised below the water table, is the primary groundwater discharge area.
- Groundwater flows from the uplands on both sides of Rock Creek towards discharge at the creek through multiple pathways.
- Approximately 70 percent of the groundwater (690 out of 962 cubic feet per day from Table 8) follows the deep pathway along the Bedrock Interface Zone.
- Groundwater converges towards Rock Creek from both the north and south. Colliding groundwater pathways zero out the horizontal gradient in the Bedrock Interface Zone 60-100 feet below the creek.
- Since water discharges to Rock Creek, water pressure is reduced at the top of the aquifer, and the primary gradient is upward near Rock Creek. The horizontal groundwater flow paths curve upward as they near the creek.
- The potentiometric pressures are equal and opposite from the north and south side of the creek, and so the blue cylinder is a zone of essential zero gradient in the north/south direction.
- Where there is essentially no gradient, there is no significant driving force to move the groundwater. Therefore groundwater in this zone remains largely stationary, or stagnant.
- The only significant gradient in the cylindrical zone is upward, towards discharge into Rock Creek.
- However, the only pathway to discharge into the creek is through 40 feet of low permeability silty clay alluvium (labeled Layer 1 in Exhibit D) so that migration to the creek is very slow.
- Water level measurements at MW7-LS and MW8-LS also document the existence of a small horizontal gradient oriented west to east at the Bedrock Interface Zone, along the axis of the creek, shown by the white arrow on top of the blue cylinder in Exhibit E.
- This gradient creates the potential for slow migration of a small portion of groundwater in the Bedrock Interface Zone along the axis of Rock Creek to the east.
- Some of the highest VOC concentrations in groundwater are detected in monitoring wells MW7-LS and MW8-LS, which are screened within the Bedrock Interface Zone near Rock Creek.
- These represent contaminants that migrated toward Rock Creek in the past along the 1,000-foot wide groundwater flow path between the GE facility and the creek.
- The VOCs are concentrated in the stagnant zone in the Bedrock Interface Zone beneath Rock Creek.

Southern Irrigation Well

As part of the FSI, MWH collected groundwater samples from the south irrigation well located on the golf course, approximately 1,000 feet south of Rock Creek. This irrigation well is located on the other side of the groundwater divide from GE facility. However, a groundwater sample collected from the irrigation well in August 2012, contained a trace amount of TCE (estimated concentration of TCE at 0.93 μg/l). The well had been operating on a continuous basis during that summer and reportedly at a rate of approximately 60-80 gallons per minute.

To provide further analysis of the groundwater flow regime and to delineate the divide, three monitoring well nests, each containing a shallow and deep well, were installed south of Rock Creek. Locations of the well nests (MW11, MW12, and MW13) are shown on Exhibit B.

The well nests were located 500 feet south of Rock Creek for the following reasons:

- The purpose of installing the wells was to collect groundwater level measurements to verify whether Rock Creek acts as a groundwater divide.
- Horizontal gradients in the basin are relatively low (a 1 foot change in elevation over 1,400 horizontal feet). Therefore a longer (rather than shorter) distance was needed between the new wells and Rock Creek to provide a measureable difference in water elevations.
- The CSM predicted the VOCs were sequestered in a cylindrical zone 100 feet below Rock Creek, which coincides with the groundwater divide. However, it is expected that the VOCs extend outward somewhat both north and south from the physical centerline of the creek, forming the cylindrical stagnant zone depicted in Exhibit E.

After the monitoring well nests were installed, groundwater samples were collected and water levels were measured from all the wells. These results were reported in the FSI Addendum Report (MWH, 2014). Chlorinated VOCs were not detected in the groundwater samples collected from the wells installed south of Rock Creek. The water levels were used to plot the potentiometric distributions on Exhibit B and C, which show hydraulic gradients toward the creek from both sides. Both sampling results and water levels confirm that Rock Creek creates a physical divide, separating the groundwater flow regime on the north from the regime on the south

The trace detection of TCE in the southern irrigation well is not inconsistent with the CSM finding that Rock Creek is a groundwater divide. The detection only indicates that a pumping well operated continuously at a high extraction rate can create a minor distortion in potentiometric distribution which allows the occasional capture of a small amount of VOCs from the stagnant zone located at the divide.

A pumping well creates a cone of depression extending 360 degrees from the well, and it draws groundwater from all directions. The occurrence of trace levels of TCE in a sample from this well indicates the cone of depression caused by a pumping well operated at a high extraction rate can extend to the stagnant zone beneath Rock Creek. Small "puffs" of TCE from the outer edge of the stagnant zone may be captured by the cone of depression.

Pumping from the irrigation well did not move the divide. If it had, VOCs would have been detected at elevated levels in one or more of the new monitoring wells. As indicated above, however, chlorinated solvents were not detected in the groundwater samples from the wells installed south of Rock Creek.

IEPA Comment 2: *Page 5-3: Are there plans to replace the south golf course irrigation well?*

Response to IEPA Comment 2: There are no plans to replace the south golf course irrigation well. As indicated above, only a trace level of TCE was detected in the well during a period of a continuous high rate of pumping. As reported in the FSI, no VOCs were detected in the south golf course irrigation pond to which the well discharged.

IEPA Comment 4: ***Page 5-3: A better, more detailed explanation regarding soil concentrations in the vicinity of the Main Building is needed. While it is true that "no free-phase dense non-aqueous phase liquids were identified" near the Main Building, concentrations of contaminants of concern (COC) in soils remain high, despite the fact that chlorinated solvent use apparently stopped in 1994. The concentrations of several COCs exceed the Part 742 soil component of the groundwater ingestion pathway (migration to groundwater) soil remediation objectives (SRO) in several samples from 1 to 28 feet below ground surface under the building and near the building, as reported in the May 2012 Interim Data Report. For example, the concentration of 1,1-DCE was 583 times the SRO at a depth of 20 feet in sample SB-07 (700 times the SRO in the duplicate sample) and 108 times the SRO at a depth of 15 feet in sample SB-06. The concentration of PCE was 53 times the SRO at a depth of four feet in sample SB-14. This report appears to minimize the situation regarding remaining source materials by referring to them as being detected at "relatively low levels."***

Response to IEPA Comment 4: An extensive soil investigation in and around the Main Building was conducted during the FSI. A total 34 soil borings were drilled for the purpose of collecting soil samples. The soil investigation extended across a broad area, approximately 1,000 feet from east to west and approximately 400 feet north to south and targeted areas where VOCs would be most likely to exist. Those areas included the former 1,1,1-TCA above ground storage tank (AST), the former western degreaser and the former central degreaser. Additional borings were installed along the interior and exterior sewer lines and several other areas, as requested by the IEPA. A total of 60 soil samples were analyzed for VOCs.

The locations of the samples were plotted along with the concentrations of detected compounds on Figures 5 and 6 of the FSI Report with the objective of identifying any patterns in the distribution. While there are some relatively high concentrations of individual compounds in individual soil borings, there is no overall pattern of contamination, or of significant hot spots or zones containing non-aqueous phase liquids (NAPLs).

Exhibit F was developed in a further effort to identify patterns in the occurrence and concentrations of VOC contaminants. Twenty different VOCs were detected in the soil samples analyzed during the FSI. They are listed on Exhibit F with orange shading to identify the compounds that were detected at concentrations above their respective SRO. There were nine detections above the SROs for the SCGIER (orange shaded). Those that are not shaded were not detected at a concentration above their respective SRO.

The data is sorted to bring compounds to the top based on the highest detections in down gradient groundwater (adjacent to Rock Creek). The data shows there are five VOCs detected in site soils that also exceed their respective groundwater remediation objective (GRO) in groundwater in the Bedrock Interface Zone near Rock Creek. 1,1-dichloroethene is the VOC that was detected at the highest concentration during the FSI soil sampling. The likely source of 1,1-DCE is from the breakdown of TCE and 1,1,1-TCA. When either TCE or 1,1,1-TCA undergoes reductive dehalogenation, 1,1-DCE is one of the first daughter products formed. Like TCE, 1,1-DCE was consistently detected above its GRO in down gradient groundwater samples collected from MW7-LS and MW8-LS. These observations are consistent with the conclusion that chlorinated VOCs are actively attenuating at the site.

The soil samples where concentrations of VOCs are above SROs will be evaluated and addressed in the forthcoming Remedial Objectives Report (ROR).

***IEPA Comment No. 5:* Figure 7 and Figure 8: Please clarify the geologic description for well MW8-LS. Each figure has a different description for the well. Is one of the wells MW09?**

Response to IEPA Comment No. 5: The geologic description in question is MW8-LS, Figures 7 and 8 have been revised and are included as Exhibit G.

If you have any questions, please contact myself at (312) 831-3432 or Peter Vagt at (312) 831-3466.

Sincerely,

MWH AMERICAS, INC.

David Powers

David Powers
Project Manager

Attachments:

EXHIBIT A – USGS STREAM FLOW DATA – ROCK CREEK
EXHIBIT B – POTENTIOMETRIC PLOT OF THE BEDROCK INTERFACE ZONE
EXHIBIT C – POTENTIOMETRIC PLOT ON CROSS SECTION
EXHIBIT D – GEOLOGIC CROSS SECTION
EXHIBIT E – CONCEPTUAL SITE MODEL
EXHIBIT F – CHARACTERISTICS OF VOCS IN SITE SOILS
EXHIBIT G – REVISED FIGURES

EXHIBIT A

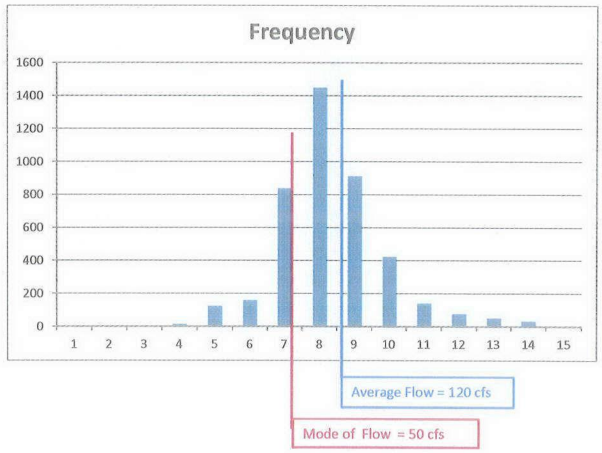
USGS STREAM FLOW DATA – ROCK CREEK

Exhibit A. Stream Discharge Record for Rock Creek Collected by USGS.

USGS Collected daily gauge readings from Rock Creek just south of Morrion
Continuous records kept for the following timespans

April 1, 1940 through September 30, 1944	4.5 yrs
October 1, 1977 through September 30, 1986	9.0 yrs

Total Number of Data Points:	4200
Minimum Flow:	7.4 cfs
Maximum Flow:	2060 cfs
Average Flow:	120 cfs
Median Flow Value:	75 cfs
Mode Flow Value:	50 cfs
Standard Deviation:	174



	Flow	Frequency
1	2.718282	0
2	4.481689	0
3	7.389056	0
4	12.18249	12
5	20.08554	121
6	33.11545	156
7	54.59815	835
8	90.01713	1446
9	148.4132	910
10	244.6919	421
11	403.4288	139
12	665.1416	75
13	1096.633	49
14	1808.042	32
15	2980.958	4
	>2980.958	0
	Total	4200

Percentage of time stream discharge equals or exceeds this value.

Cum	Percent
0	100%
0	100%
0	100%
12	100%
133	97%
289	93%
1124	73%
2570	39%
3480	17%
3901	7%
4040	4%
4115	2%
4164	1%
4196	0%
4200	0%
4200	0%

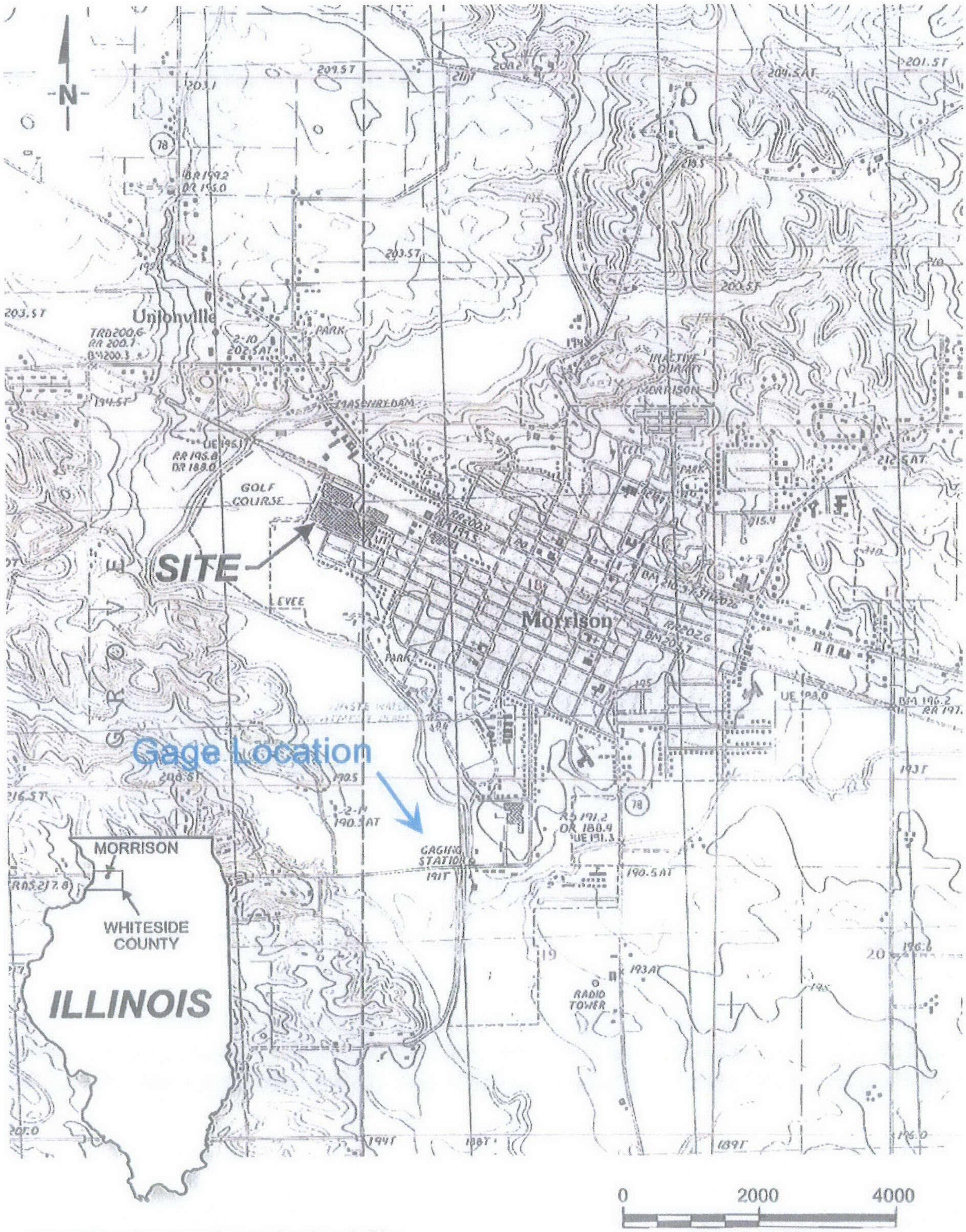
Data are tabulated below.

\# ------------------------------- WARNING ----------------------------------
\# The data you have obtained from this automated U.S. Geological Survey database
\# have not received Director's approval and as such are provisional and subject to
\# revision. The data are released on the condition that neither the USGS nor the
\# United States Government may be held liable for any damages resulting from its use.
\# Additional info: http://waterdata.usgs.gov/nwis/help/?provisional
\#
\# File-format description: http://waterdata.usgs.gov/nwis/?tab_delimited_format_info
\# Automated-retrieval info: http://waterdata.usgs.gov/nwis/?automated_retrieval_info
\#
\# Contact: gs-w_support_nwisweb@usgs.gov
\# retrieved: 2012-04-12 11:46:30 EDT (caww02)
\#
\# Data for the following 1 site(s) are contained in this file
\# USGS 05446000 ROCK CREEK AT MORRISON, IL
\# ---
\#
\# Data provided for site 05446000
\# DD parameter statistic Description
\# 01 00060 00003 Discharge, cubic feet per second (Mean)
\#
\# Data-value qualification codes included in this output:
\# A Approved for publication -- Processing and review completed.
\#

agency_cd	site_no	datetime	01_00060_00003	01_00060_00003_cd
5s	15s	20d	14n	10s
USGS	5446000	4/1/1940	41	A
USGS	5446000	4/2/1940	40	A
USGS	5446000	4/3/1940	57	A
USGS	5446000	4/4/1940	54	A
USGS	5446000	4/5/1940	44	A
USGS	5446000	4/6/1940	37	A
USGS	5446000	4/7/1940	43	A
USGS	5446000	4/8/1940	63	A
USGS	5446000	4/9/1940	61	A
USGS	5446000	4/10/1940	50	A
USGS	5446000	4/11/1940	58	A
USGS	5446000	4/12/1940	53	A
USGS	5446000	4/13/1940	43	A
USGS	5446000	4/14/1940	39	A
USGS	5446000	4/15/1940	37	A
USGS	5446000	4/16/1940	33	A
USGS	5446000	4/17/1940	44	A
USGS	5446000	4/18/1940	76	A
USGS	5446000	4/19/1940	75	A
USGS	5446000	4/20/1940	51	A
USGS	5446000	4/21/1940	43	A
USGS	5446000	4/22/1940	40	A
USGS	5446000	4/23/1940	38	A
USGS	5446000	4/24/1940	38	A
USGS	5446000	4/25/1940	36	A
USGS	5446000	4/26/1940	34	A
USGS	5446000	4/27/1940	32	A
USGS	5446000	4/28/1940	30	A
USGS	5446000	4/29/1940	32	A
USGS	5446000	4/30/1940	36	A
USGS	5446000	5/1/1940	34	A
USGS	5446000	5/2/1940	32	A
USGS	5446000	5/3/1940	30	A
USGS	5446000	5/4/1940	27	A
USGS	5446000	5/5/1940	26	A
USGS	5446000	5/6/1940	26	A
USGS	5446000	5/7/1940	25	A
USGS	5446000	5/8/1940	25	A
USGS	5446000	5/9/1940	27	A
USGS	5446000	5/10/1940	27	A
USGS	5446000	5/11/1940	30	A
USGS	5446000	5/12/1940	27	A
USGS	5446000	5/13/1940	25	A
USGS	5446000	5/14/1940	24	A
USGS	5446000	5/15/1940	23	A

Full Database Available upon Request from MWH

Exhibit A. Stream Discharge Record for Rock Creek Collected by USGS.

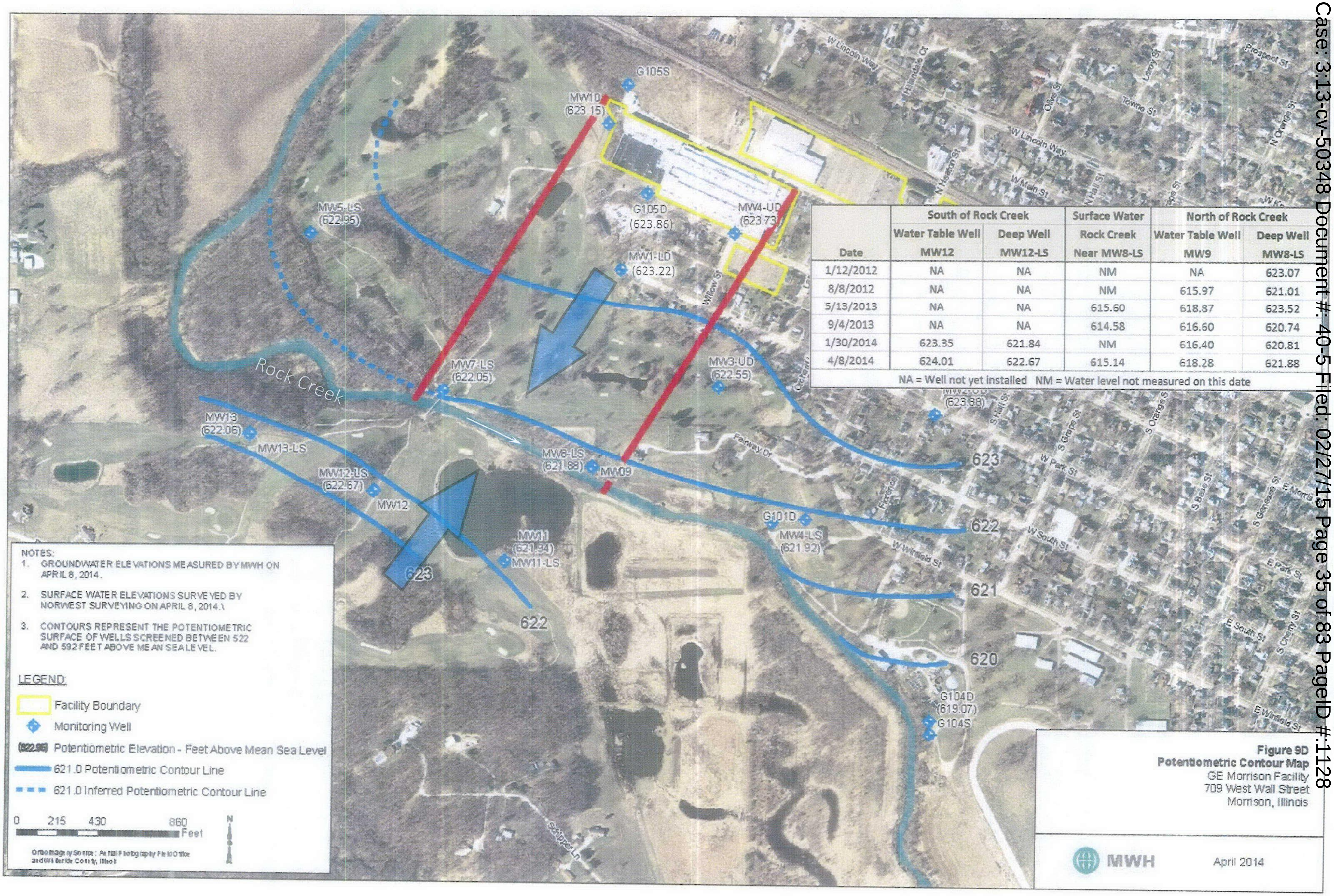


SOURCE: U.S.G.S 7.5 Minute Quadrangle Map, Morrison, Illinois, 1985.

EXHIBIT B

POTENTIOMETRIC PLOT OF THE BEDROCK INTERFACE ZONE

Exhibit B. Potentiometric Plot of the Bedrock Interface Zone.



Date	South of Rock Creek		Surface Water	North of Rock Creek	
	Water Table Well MW12	Deep Well MW12-LS	Rock Creek Near MW8-LS	Water Table Well MW9	Deep Well MW8-LS
1/12/2012	NA	NA	NM	NA	623.07
8/8/2012	NA	NA	NM	615.97	621.01
5/13/2013	NA	NA	615.60	618.87	623.52
9/4/2013	NA	NA	614.58	616.60	620.74
1/30/2014	623.35	621.84	NM	616.40	620.81
4/8/2014	624.01	622.67	615.14	618.28	621.88

NA = Well not yet installed NM = Water level not measured on this date

NOTES:

1. GROUNDWATER ELEVATIONS MEASURED BY MWH ON APRIL 8, 2014.
2. SURFACE WATER ELEVATIONS SURVEYED BY NORWEST SURVEYING ON APRIL 8, 2014.\
3. CONTOURS REPRESENT THE POTENTIOMETRIC SURFACE OF WELLS SCREENED BETWEEN 522 AND 592 FEET ABOVE MEAN SEA LEVEL.

LEGEND:

Facility Boundary
Monitoring Well
(622.95) Potentiometric Elevation - Feet Above Mean Sea Level
621.0 Potentiometric Contour Line
621.0 Inferred Potentiometric Contour Line

0 215 430 860 Feet

Orthoimagery Source: Aerial Photography Field Office and Whiteside County, Illinois

Figure 9D
Potentiometric Contour Map
GE Morrison Facility
709 West Wall Street
Morrison, Illinois

MWH April 2014

EXHIBIT C

POTENTIOMETRIC PLOT ON CROSS SECTION

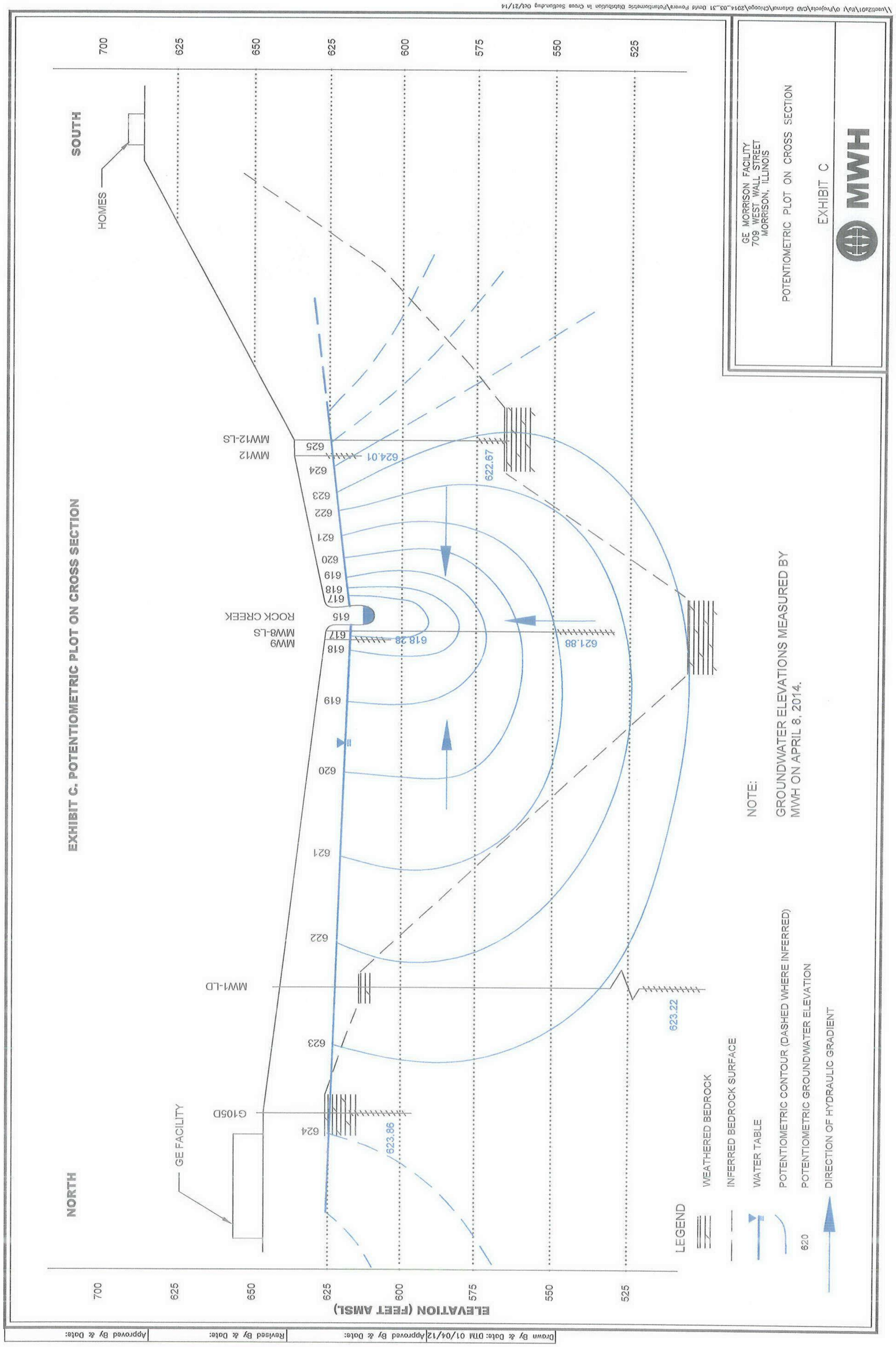


EXHIBIT C. POTENTIOMETRIC PLOT ON CROSS SECTION
NORTH
SOUTH
GE FACILITY
HOMES
G105D
MW1-LD
MW9
MW8-LS
ROCK CREEK
MW12
MW12-LS
623.86
623.22
618.28
621.88
622.67
624.01
ELEVATION (FEET AMSL)
LEGEND
WEATHERED BEDROCK
INFERRED BEDROCK SURFACE
WATER TABLE
POTENTIOMETRIC CONTOUR (DASHED WHERE INFERRED)
POTENTIOMETRIC GROUNDWATER ELEVATION
DIRECTION OF HYDRAULIC GRADIENT
NOTE:
GROUNDWATER ELEVATIONS MEASURED BY MWH ON APRIL 8, 2014.
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
POTENTIOMETRIC PLOT ON CROSS SECTION
EXHIBIT C
MWH
Drawn By & Date: DTM 01/04/12
Approved By & Date:
Revised By & Date:
Approved By & Date:

EXHIBIT D

GEOLOGIC CROSS SECTION

Exhibit D. Geologic Cross Section.

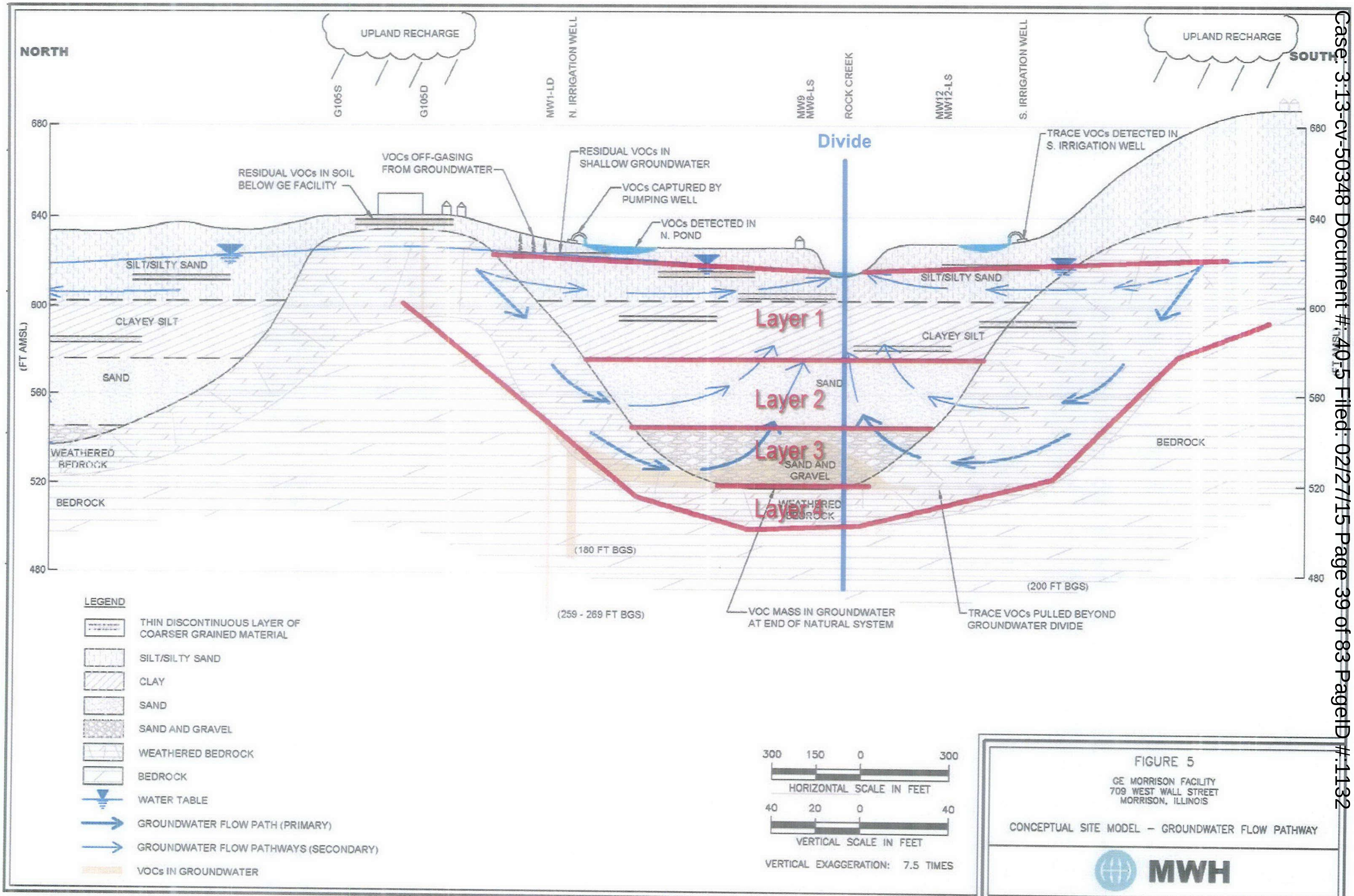


EXHIBIT E

CONCEPTUAL SITE MODEL

Exhibit E. Conceptual Site Model

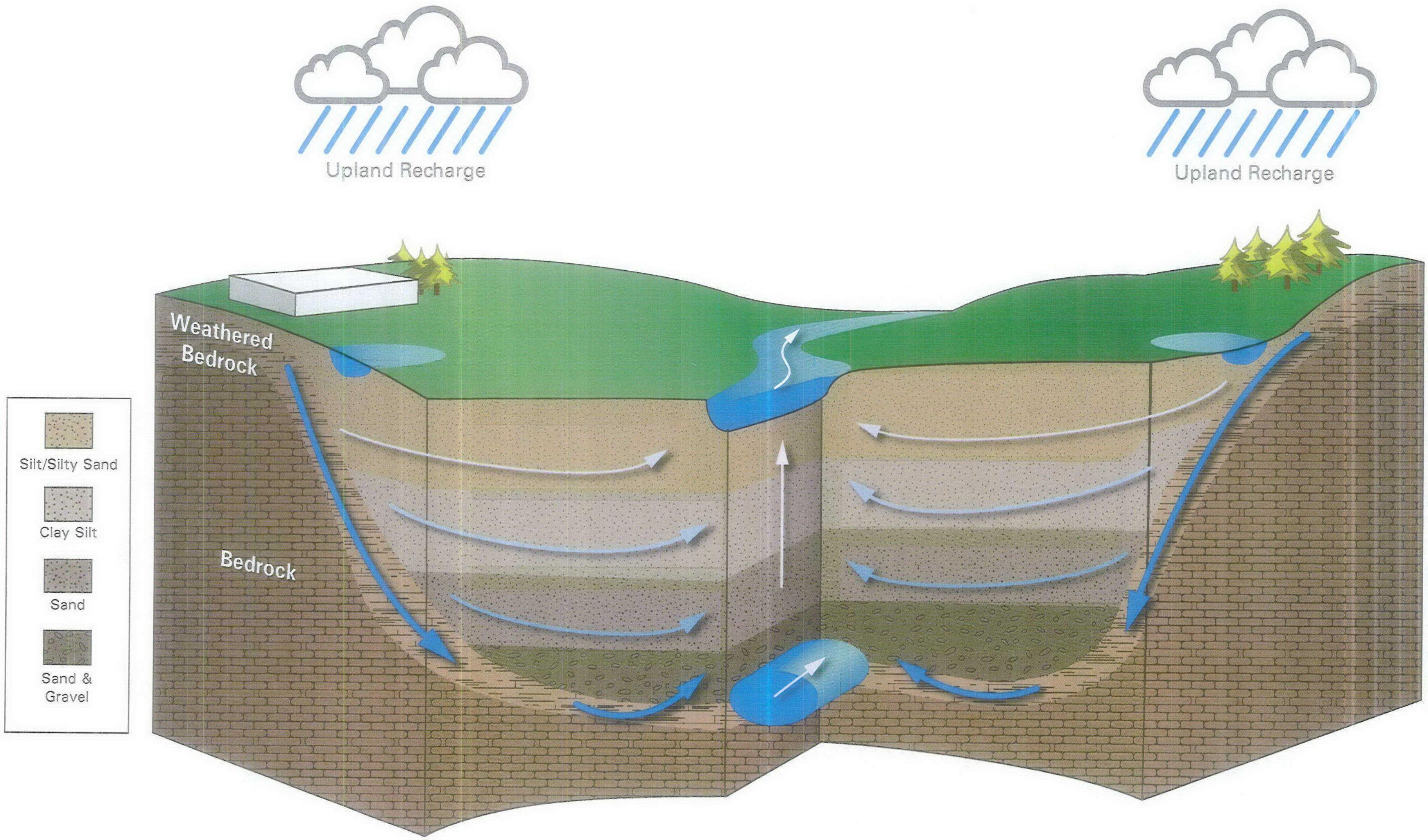


EXHIBIT F

CHARACTERISTICS OF VOCS IN SITE SOILS

Exhibit F. Characteristics of VOCs in Site Soils
Former GE Morrison Facility
Morrison, Illinois

Sorted by Maximum Downgradient Concentration in Groundwater[(1)]

Volatile Organic Compound	Tier 1 SRO for Soil (µg/kg)	Number of Detections in Soils	Maximum Concentration Detected in Soil (µg/kg)	Maximum Concentration Detected in Groundwater (µg/L)
Trichloroethene	**60**	**28**	**520**	**4,800**
cis-1,2-Dichloroethene	**400**	**4**	**3,300 E**	**3,000**
1,1,1-Trichloroethane	**2,000**	**25**	**12,000**	**200**
1,1-Dichloroethene	**60**	**20**	**42,000**	**200**
trans-1,2-Dichloroethene	700	3	350 E	98
1,1-Dichloroethane	23,000	11	15,000	71
Vinyl Chloride	**10**	**2**	**11**	**52**
Methylene Chloride	**20**	**30**	**300 J**	**ND**
Tetrachloroethene	**60**	**8**	**3,200**	**ND**
1,2-Dichloroethane	**20**	**8**	**1,100 J**	**ND**
1,1,2-Trichloroethane	**20**	**3**	**2,900**	**ND**
Acetone	25,000	4	14 J	ND
1,2,4 - Trichlorobenzene	5,000	3	1.0J	ND
Chloroform	600	2	1.3 J	ND
Dibromochloromethane	400	1	2.8 J	ND
2-butanone (MEK)	----	3	4,700	ND
2-Hexanone	----	1	8.6	ND
4-methyl-2-pentanone	----	3	510	ND
Chloroethane	----	1	2.6 J	ND
Methylcyclohexane	----	1	0.85 J	ND

Notes:

--- - Indicates there is no established screening criteria for this compound.

(1) - Maximum detected downgradient concentration in groundwater samples collected from MW7-LS and MW8-LS.

E - Result exceeded calibration range.

Highlighted result is above one or more TACO screening standard.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ND - not detected

TACO - Tiered Approach to Corrective Action Objectives, 35 Illinois Administrative Code Part 742.

Tier 1 SRO - TACO Tier 1 Soil Remediation Objective, 35 IAC Part 742, Table A.

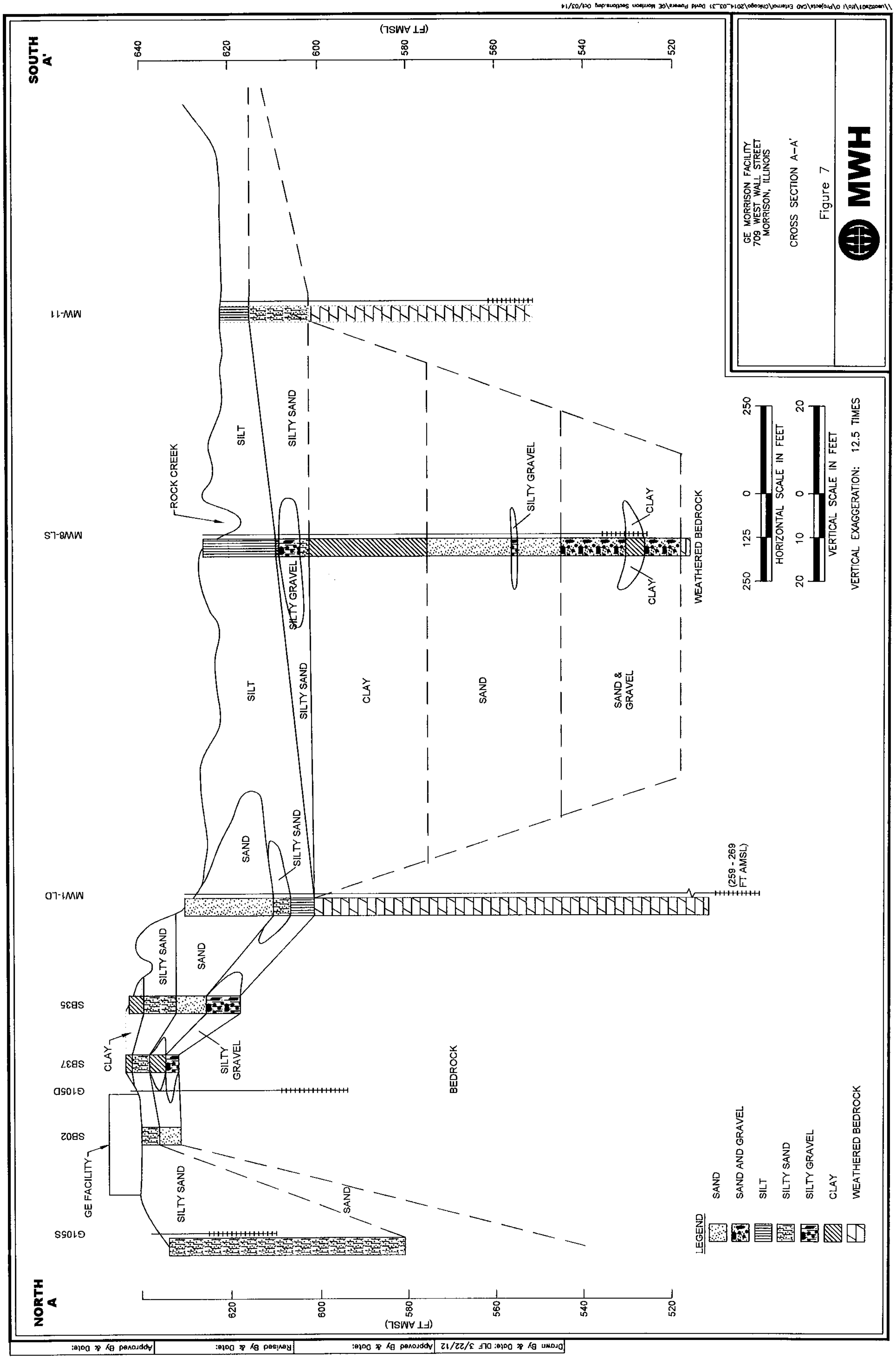
µg/kg - micrograms per kilogram

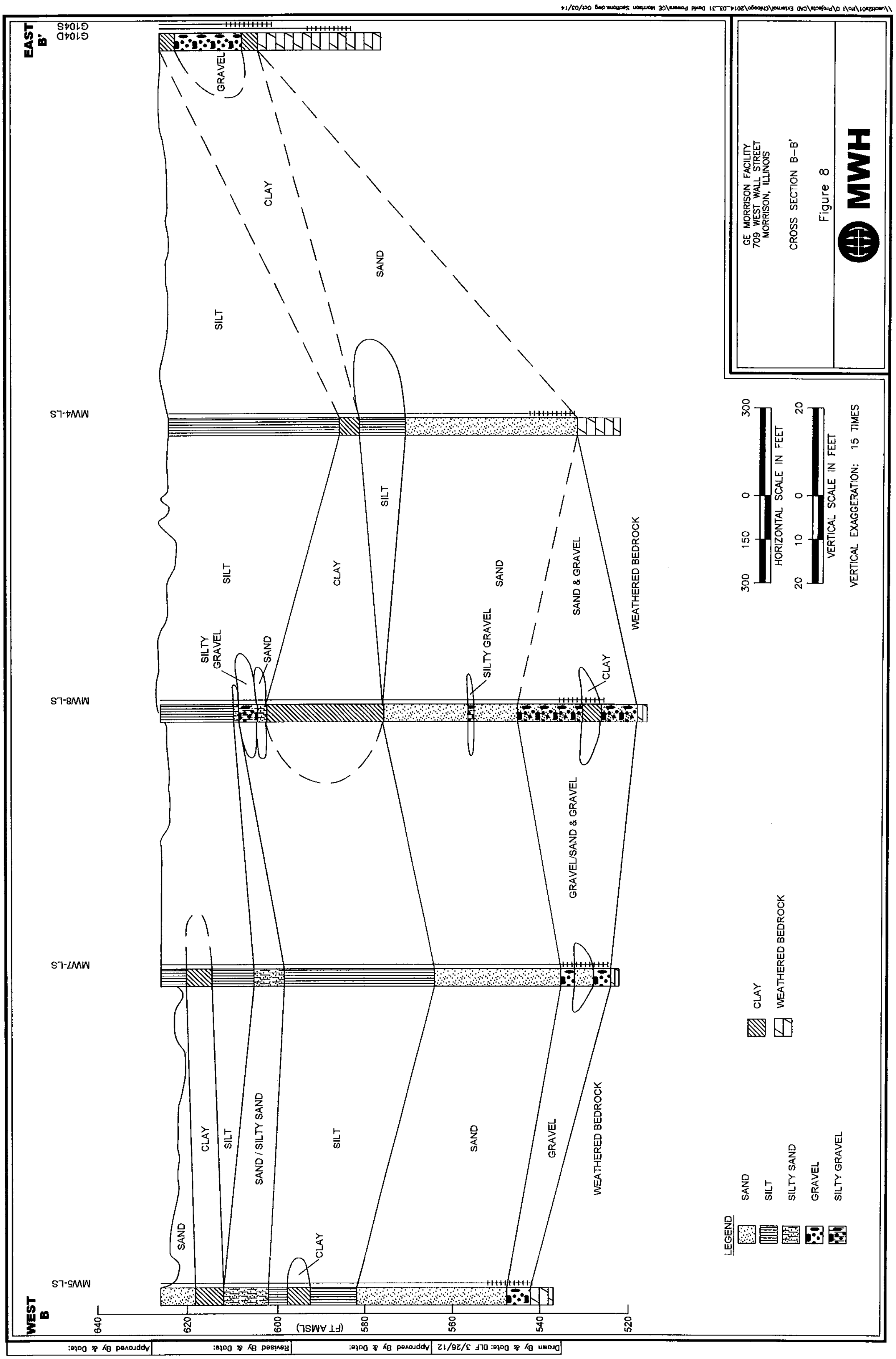
µg/L - micograms per liter

DPP/NK
P:\1011400-1011499\1011490 - GE Morrison\4.0 Execution (Project Deliverables)\4.13 Revised FSI Addendum\Exhibit F - Characteristics of VOCs in Soil.xlsx

EXHIBIT G

REVISED FIGURES


GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CROSS SECTION A–A'
Figure 7
MWH
SOUTH
A'
NORTH
A
(FT AMSL)
MW-11
MW8-LS
MW1-LD
SB35
SB37
G105D
SB02
G105S
ROCK CREEK
GE FACILITY
SILT
SILTY SAND
SILTY GRAVEL
CLAY
SAND
SAND & GRAVEL
WEATHERED BEDROCK
BEDROCK
(259 - 269 FT AMSL)
HORIZONTAL SCALE IN FEET
VERTICAL SCALE IN FEET
VERTICAL EXAGGERATION: 12.5 TIMES
LEGEND
SAND
SAND AND GRAVEL
SILT
SILTY SAND
SILTY GRAVEL
CLAY
WEATHERED BEDROCK
Drawn By & Date: DLF 3/22/12
Approved By & Date:
Revised By & Date:
Approved By & Date:



WEST
B
EAST
B'
MW5-LS
MW7-LS
MW8-LS
MW4-LS
G104D
G104S
640
620
600
580
560
540
520
(FT AMSL)
SAND
CLAY
SILT
SAND / SILTY SAND
SILT
SAND
GRAVEL
WEATHERED BEDROCK
GRAVEL/SAND & GRAVEL
SILTY GRAVEL
SAND
SILT
CLAY
SAND
SAND & GRAVEL
WEATHERED BEDROCK
SILTY GRAVEL
CLAY
SILT
SILT
SAND
CLAY
GRAVEL
LEGEND
SAND
SILT
SILTY SAND
GRAVEL
SILTY GRAVEL
CLAY
WEATHERED BEDROCK
300 150 0 300
HORIZONTAL SCALE IN FEET
20 10 0 20
VERTICAL SCALE IN FEET
VERTICAL EXAGGERATION: 15 TIMES
GE MORRISON FACILITY
709 WEST WALL STREET
MORRISON, ILLINOIS
CROSS SECTION B–B'
Figure 8
MWH
Drawn By & Date: DLF 3/26/12
Approved By & Date:
Revised By & Date:
Approved By & Date:

Exhibit 10

Selected Materials from
ARCADIS' Vapor Intrusion Sampling Report
(dated May 2014)

LEGEND

Grab Groundwater Sample

△ No VOCs Exceeded Illinois EPA Remediation Objectives

▲ TCE and VC Exceeded Illinois EPA Remediation Objectives

Parcel Boundaries

0 200 400 Feet

GRAPHIC SCALE

NOTES:
1. VOC - Volatile Organic Compound
2. TCE - Trichloroethene
3. VC - Vinyl Chloride

GE MORRISON FACILITY

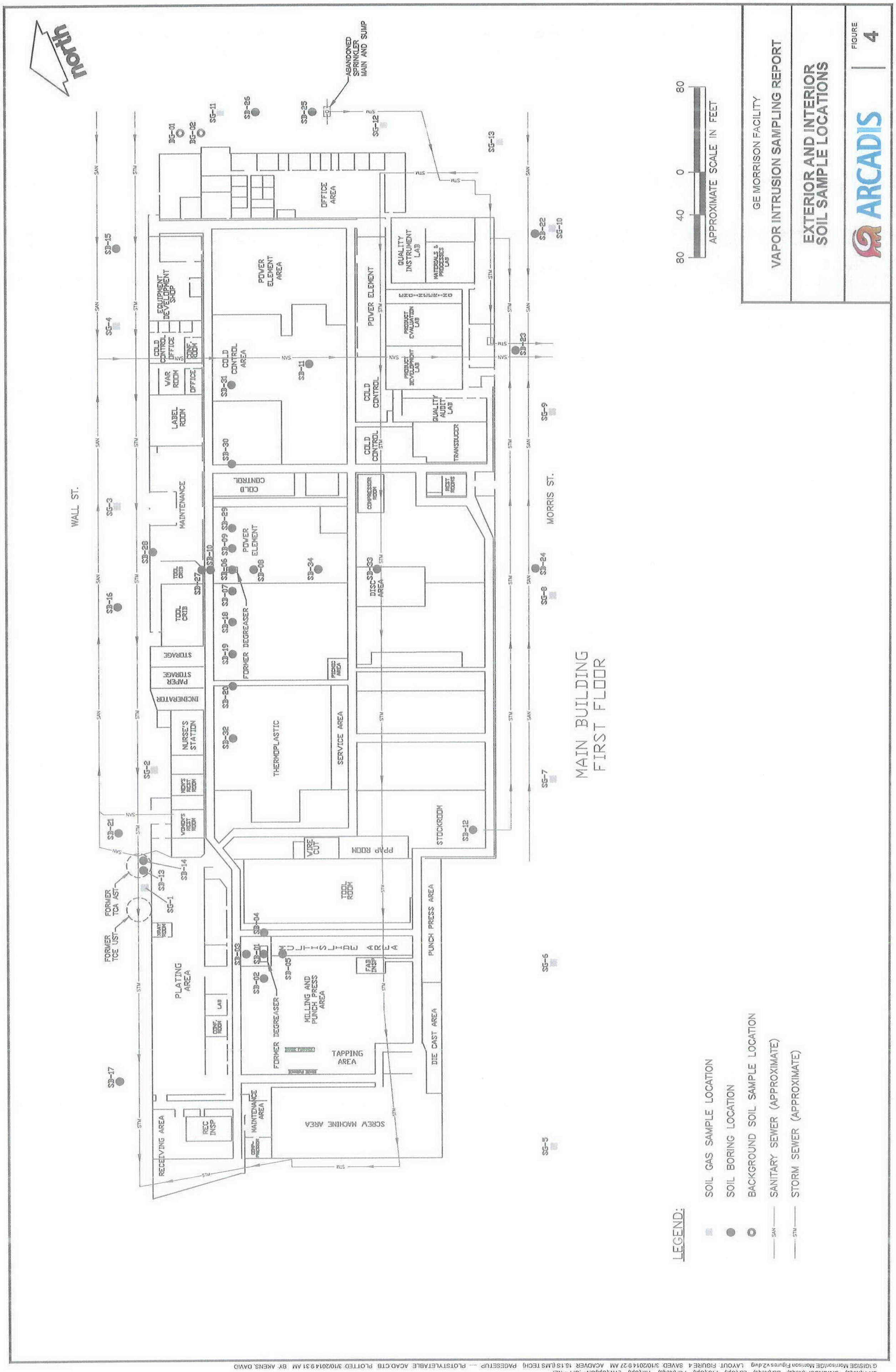
VAPOR INTRUSION SAMPLING REPORT

ON AND OFF-SITE GRAB GROUNDWATER SAMPLE LOCATIONS

ARCADIS

FIGURE 3

CITY: LAKEWOOD DIV/GROUP: IM DB: M. MALLO TM: N. WEINBERG
GE MORRISON (ME000143.0002)
Z:\GISPROJECTS_ENVIGE_Morrison\GIS\ArcMap_MXD\Groundwater_SoilGas_mar_06_2014.mxd


north
WALL ST.
MORRIS ST.
MAIN BUILDING
FIRST FLOOR
ABANDONED SPRINKLER MAIN AND SUMP
FORMER TCA AST
FORMER TCE UST
LEGEND:
SOIL GAS SAMPLE LOCATION
SOIL BORING LOCATION
BACKGROUND SOIL SAMPLE LOCATION
SANITARY SEWER (APPROXIMATE)
STORM SEWER (APPROXIMATE)
80 40 0 80
APPROXIMATE SCALE IN FEET
GE MORRISON FACILITY
VAPOR INTRUSION SAMPLING REPORT
EXTERIOR AND INTERIOR SOIL SAMPLE LOCATIONS
ARCADIS
FIGURE
4

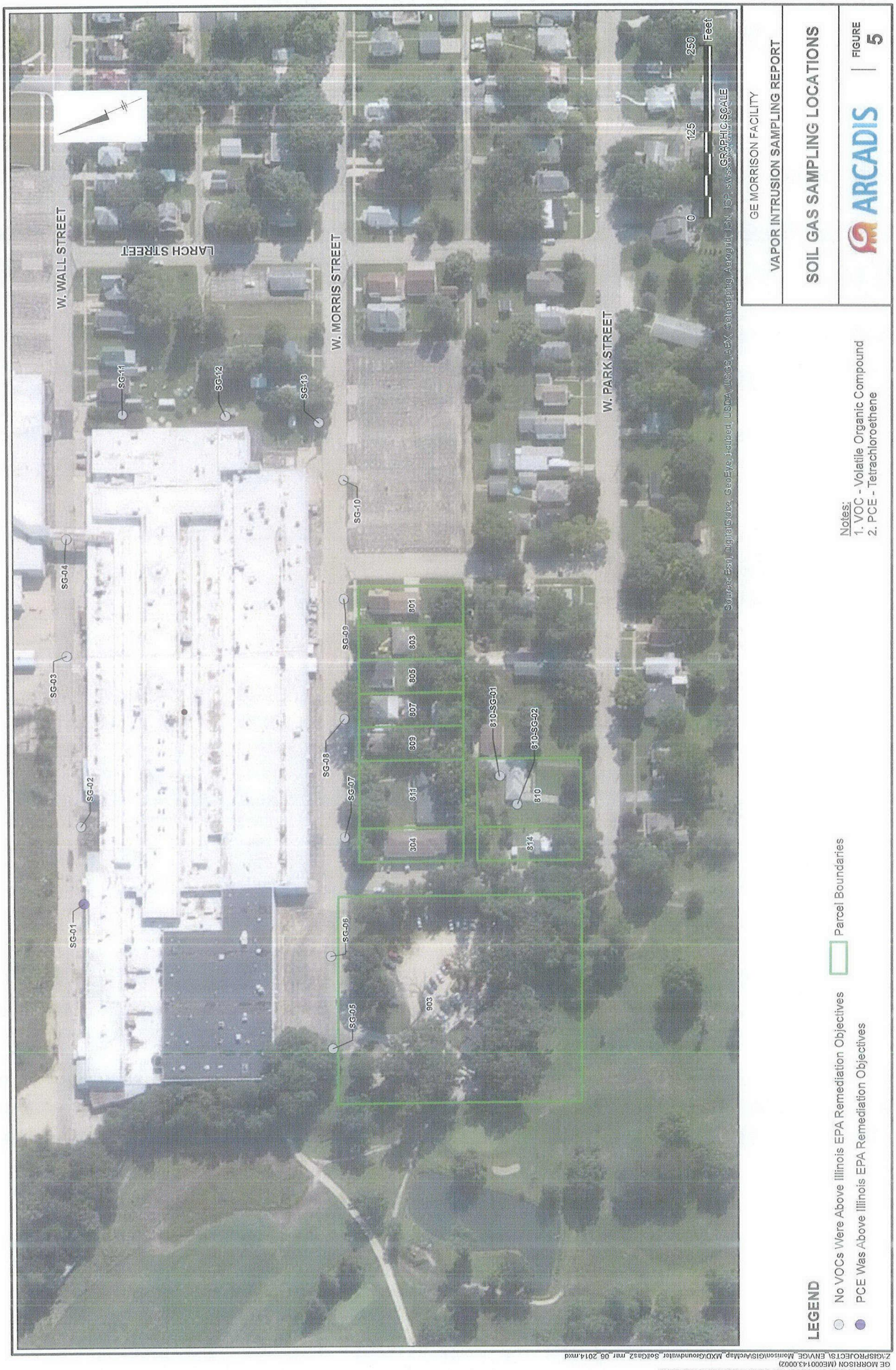

GE MORRISON FACILITY
VAPOR INTRUSION SAMPLING REPORT
SOIL GAS SAMPLING LOCATIONS
ARCADIS
FIGURE
5
GRAPHIC SCALE
0
125
250
Feet
W. WALL STREET
LARCH STREET
W. MORRIS STREET
W. PARK STREET
SG-01
SG-02
SG-03
SG-04
SG-05
SG-06
SG-07
SG-08
SG-09
SG-10
SG-11
SG-12
SG-13
810-SG-01
810-SG-02
801
803
805
807
809
811
304
810
814
903
LEGEND
No VOCs Were Above Illinois EPA Remediation Objectives
PCE Was Above Illinois EPA Remediation Objectives
Parcel Boundaries
Notes:
1. VOC - Volatile Organic Compound
2. PCE - Tetrachloroethene
CITY: LAKEWOOD DIV/GROUP: IM DB: M. MALLO TM: N. WEINBERG
GE MORRISON (ME000143.0002)

Table 3
On-Site Soil Sampling Results - Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Remediation Objectives Inhalation (a)	SB06-15	SB07-20	SB07-20 Duplicate	SB08-28	SB09-20	SB10-14	SB10-20	SB11-12	SB11-13	SB11-13 Duplicate	SB12-2
VOCs (SW846 8260)			12/5/2011	12/5/2011	12/5/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011
1,1,1-Trichloroethane	µg/kg	1,200,000	**4,600**	2,700 U	**660 J**	**12,000**	**16**	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,1,2,2-Tetrachloroethane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,1,2-Trichloroethane	µg/kg	1,800,000	290 U	2,700 U	**2,900**	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,1-Dichloroethane	µg/kg	1,700,000	**150 J**	2,700 U	2,900 U	**15,000**	**37**	4.6 U	**1.0 J**	4.9 U	4.6 U	4.6 U	4.3 U
1,1-Dichloroethene	µg/kg	470,000	**6,500**	**35,000**	**42,000**	**15,000**	**140**	**2.0 J**	**8.2**	4.9 U	**1.1 J**	4.6 U	**0.88 J**
1,2,4-Trichlorobenzene	µg/kg	3,200,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,2-Dibromo-3-chloropropane	µg/kg	17,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,2-Dibromoethane (EDB)	µg/kg	120	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,2-Dichlorobenzene	µg/kg	560,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,2-Dichloroethane	µg/kg	700	**410**	**940 J**	**1,100 J**	**1,100 J**	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,2-Dichloropropane	µg/kg	23,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,3-Dichlorobenzene	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
1,4-Dichlorobenzene	µg/kg	17,000,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
2-Butanone (MEK)	µg/kg	--	290 U	**3,700**	**4,700**	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
2-Hexanone	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	290 U	2,700 U	**510 J**	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Acetone	µg/kg	100,000,000	1,100 U	11,000 U	12,000 U	5,500 U	16 U	19 U	18 U	20 U	18 U	18 U	17 U
Benzene	µg/kg	1,600	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Bromodichloromethane	µg/kg	3,000,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Bromoform	µg/kg	100,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Bromomethane	µg/kg	15,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Carbon disulfide	µg/kg	720,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Carbon tetrachloride	µg/kg	640	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Chlorobenzene	µg/kg	210,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Chloroethane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U*	4.5 U*	4.9 U*	4.6 U*	4.6 U*	4.3 U*
Chloroform	µg/kg	540	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Chloromethane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
cis-1,2-Dichloroethene	µg/kg	1,200,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
cis-1,3-Dichloropropene	µg/kg	2,100	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Cyclohexane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Dibromochloromethane	µg/kg	1,300,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Dichlorodifluoromethane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Ethylbenzene	µg/kg	400,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Isopropylbenzene (Cumene)	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Methyl Acetate	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Methyl-tert-butyl ether	µg/kg	8,800,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Methylcyclohexane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	**0.85 J**	4.3 U

Table 3
On-Site Soil Sampling Results - Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Remediation Objectives	SB06-15	SB07-20	SB07-20 Duplicate	SB08-28	SB09-20	SB10-14	SB10-20	SB11-12	SB11-13	SB11-13 Duplicate	SB12-2
		Inhalation (a)											
Methylene Chloride	µg/kg	24,000	**82 J**	2,700 U	2,900 U	**300 J**	**1.6 JB**	**1.7 JB**	**2.0 JB**	**2.3 JB**	**2.2 JB**	**2.4 JB**	**3.9 JB**
Styrene	µg/kg	1,500,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Tetrachloroethene	µg/kg	20,000	**77 J**	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Toluene	µg/kg	650,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
trans-1,2-Dichloroethene	µg/kg	3,100,000	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
trans-1,3-Dichloropropene	µg/kg	2,100	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Trichloroethene	µg/kg	8,900	**46 J**	2,700 U	2,900 U	1,400 U	**0.905 J**	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	**1.3 J**
Trichlorofluoromethane	µg/kg	--	290 U	2,700 U	2,900 U	1,400 U	4.0 U	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Vinyl chloride	µg/kg	1,100	290 U	2,700 U	2,900 U	1,400 U	**1.8 J**	4.6 U	4.5 U	4.9 U	4.6 U	4.6 U	4.3 U
Xylenes, Total	µg/kg	320,000	860 U	8,100 U	8,800 U	4,100 U	12 U	14 U	14 U	15 U	14 U	14 U	13 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table B - Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties

-- = Indicates there is no established Remediation Objective for this compound

* = Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits

B = Analyte was detected in the associated method blank

E = Result exceeded calibration range

J = Estimated concentration

Illinois EPA = Illinois Environmental Protection Agency

µg/kg = Micrograms per kilogram

U = Compound not detected

VOCs = Volatile organic compounds

Table 3
On-Site Soil Sampling Results - Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Remediation Objectives Inhalation (a)	SB12-10	SB13A-13	SB13A-13 Duplicate	SB14-4	SB14-13	SB15-5	SB15-8	SB16-1	SB16-15	SB17-4	SB17-19
VOCs (SW846 8260)			12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/6/2011	12/7/2011	12/7/2011	12/7/2011	12/7/2011	12/7/2011	12/7/2011
1,1,1-Trichloroethane	µg/kg	1,200,000	**1.9 J**	**25**	**7.1**	**5,800**	**2.4 J**	4.6 U	4.5 U	**1.5 J**	4.4 U	4.3 U	4.6 U
1,1,2,2-Tetrachloroethane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,1,2-Trichloroethane	µg/kg	1,800,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**4.5 J**	4.4 U	**3.4 J**	4.6 U
1,1-Dichloroethane	µg/kg	1,700,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	**1.2 J**	4.6 U	4.4 U	4.3 U	4.6 U
1,1-Dichloroethene	µg/kg	470,000	**5.1**	4.9 U	5.1 U	**150 J**	4.7 U	4.6 U	**9.1**	4.6 U	4.4 U	**8.5**	**16**
1,2,4-Trichlorobenzene	µg/kg	3,200,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	**0.98 J**	4.3 U	4.6 U
1,2-Dibromo-3-chloropropane	µg/kg	17,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,2-Dibromoethane (EDB)	µg/kg	120	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,2-Dichlorobenzene	µg/kg	560,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,2-Dichloroethane	µg/kg	700	4.4 U	**2.3 J**	5.1 U	**68 J**	4.7 U	4.6 U	4.5 U	**1.9 J**	4.4 U	**1.7 J**	4.6 U
1,2-Dichloropropane	µg/kg	23,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,3-Dichlorobenzene	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
1,4-Dichlorobenzene	µg/kg	17,000,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
2-Butanone (MEK)	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	**3.2 J**	4.6 U
2-Hexanone	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	**8.6**	4.6 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**0.94 J**	4.4 U	**0.94 J**	4.6 U
Acetone	µg/kg	100,000,000	18 U	20 U	20 U	910 U	19 U	18 U	18 U	**4.9 J**	18 U	**14 J**	18 U
Benzene	µg/kg	1,600	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Bromodichloromethane	µg/kg	3,000,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Bromoform	µg/kg	100,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Bromomethane	µg/kg	15,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Carbon disulfide	µg/kg	720,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Carbon tetrachloride	µg/kg	640	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Chlorobenzene	µg/kg	210,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Chloroethane	µg/kg	--	4.4 U*	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Chloroform	µg/kg	540	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**1.2 J**	4.4 U	**1.3 J**	4.6 U
Chloromethane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
cis-1,2-Dichloroethene	µg/kg	1,200,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**82**	4.4 U	**3,300 E**	**39**
cis-1,3-Dichloropropene	µg/kg	2,100	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Cyclohexane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Dibromochloromethane	µg/kg	1,300,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**2.8 J**	4.4 U	4.3 U	4.6 U
Dichlorodifluoromethane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Ethylbenzene	µg/kg	400,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Isopropylbenzene (Cumene)	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Methyl Acetate	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Methyl-tert-butyl ether	µg/kg	8,800,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Methylcyclohexane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U

Table 3
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Methylene Chloride	µg/kg	24,000	**2.2 JB**	**1.7 JB**	**1.5 JB**	230 U	**1.5 JB**	**1.5 JB**	**2.1 JB**	**0.65 JB**	**1.7 JB**	**1.3 JB**	**2.7 JB**
Styrene	µg/kg	1,500,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Tetrachloroethene	µg/kg	20,000	4.4 U	**6.6**	**1.1 J**	**3,200**	4.7 U	4.6 U	4.5 U	**2.1 J**	4.4 U	4.3 U	4.6 U
Toluene	µg/kg	650,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
trans-1,2-Dichloroethene	µg/kg	3,100,000	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	**3.3 J**	4.4 U	**350 E**	**1.1 J**
trans-1,3-Dichloropropene	µg/kg	2,100	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Trichloroethene	µg/kg	8,900	**1.1 J**	**3.9 J**	**0.82 J**	**520**	4.7 U	4.6 U	4.5 U	**250 E**	**18**	**4.4**	**48**
Trichlorofluoromethane	µg/kg	--	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	4.3 U	4.6 U
Vinyl chloride	µg/kg	1,100	4.4 U	4.9 U	5.1 U	230 U	4.7 U	4.6 U	4.5 U	4.6 U	4.4 U	**11**	4.6 U
Xylenes, Total	µg/kg	320,000	13 U	15 U	15 U	680 U	14 U	14 U	14 U	14 U	13 U	13 U	14 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

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GE Morrison Facility
Morrison, Illinois

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VOCs (SW846 8260)			12/8/2011	12/21/2011	12/21/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/21/2011
1,1,1-Trichloroethane	µg/kg	1,200,000	290 U	**5.1**	**1.5 J**	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,1,2,2-Tetrachloroethane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,1,2-Trichloroethane	µg/kg	1,800,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,1-Dichloroethane	µg/kg	1,700,000	290 U	**0.53 J**	**0.94 J**	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	**0.83 J**	4.6 U	4.8 U
1,1-Dichloroethene	µg/kg	470,000	**1,300**	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,2,4-Trichlorobenzene	µg/kg	3,200,000	290 U*	**1.0 J**	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,2-Dibromo-3-chloropropane	µg/kg	17,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,2-Dibromoethane (EDB)	µg/kg	120	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,2-Dichlorobenzene	µg/kg	560,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,2-Dichloroethane	µg/kg	700	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,2-Dichloropropane	µg/kg	23,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,3-Dichlorobenzene	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
1,4-Dichlorobenzene	µg/kg	17,000,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
2-Butanone (MEK)	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
2-Hexanone	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Acetone	µg/kg	100,000,000	1200 U	17 U	19 U	19 U	17 U	19 U	17 U	19 U	17 U	18 U	19 U
Benzene	µg/kg	1,600	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Bromodichloromethane	µg/kg	3,000,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Bromoform	µg/kg	100,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Bromomethane	µg/kg	15,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Carbon disulfide	µg/kg	720,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Carbon tetrachloride	µg/kg	640	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Chlorobenzene	µg/kg	210,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Chloroethane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Chloroform	µg/kg	540	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Chloromethane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
cis-1,2-Dichloroethene	µg/kg	1,200,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
cis-1,3-Dichloropropene	µg/kg	2,100	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Cyclohexane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Dibromochloromethane	µg/kg	1,300,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Dichlorodifluoromethane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Ethylbenzene	µg/kg	400,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Isopropylbenzene (Cumene)	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Methyl Acetate	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Methyl-tert-butyl ether	µg/kg	8,800,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Methylcyclohexane	µg/kg	--	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U

Table 3
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Morrison, Illinois

Compound	Units	Soil Remediation Objectives Inhalation (a)	SB20-20	SB21-12	SB21-15	SB22-4	SB22-7	SB23-4	SB23-8	SB24-5	SB24-12	SB24-12 Duplicate	SB25-8
Methylene Chloride	µg/kg	24,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Styrene	µg/kg	1,500,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Tetrachloroethene	µg/kg	20,000	290 U	**0.57 J**	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Toluene	µg/kg	650,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
trans-1,2-Dichloroethene	µg/kg	3,100,000	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
trans-1,3-Dichloropropene	µg/kg	2,100	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Trichloroethene	µg/kg	8,900	290 U	**3.4 J**	**0.68 J**	4.7 U	4.4 U	**6.3**	**0.59 J**	4.7 U	4.2 U	4.6 U	4.8 U
Trichlorofluoromethane	µg/kg	–	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Vinyl chloride	µg/kg	1,100	290 U	4.2 U	4.8 U	4.7 U	4.4 U	4.8 U	4.2 U	4.7 U	4.2 U	4.6 U	4.8 U
Xylenes, Total	µg/kg	320,000	880 U	13 U	14 U	14 U	13 U	15 U	13 U	14 U	13 U	14 U	14 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

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VOCs (SW846 8260)			12/21/2011	12/21/2011	12/21/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011	12/29/2011
1,1,1-Trichloroethane	µg/kg	1,200,000	4.3 U	4.8 U	4.3 U	**13**	**0.94 J**	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,1,2,2-Tetrachloroethane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,1,2-Trichloroethane	µg/kg	1,800,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,1-Dichloroethane	µg/kg	1,700,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	**1.5 J**	**1.6 J**	5.3 U	**60**
1,1-Dichloroethene	µg/kg	470,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	**1.9 J**	5.4 U	5.8 U	5.3 U	**4.8 J**
1,2,4-Trichlorobenzene	µg/kg	3,200,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,2-Dibromo-3-chloropropane	µg/kg	17,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,2-Dibromoethane (EDB)	µg/kg	120	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,2-Dichlorobenzene	µg/kg	560,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,2-Dichloroethane	µg/kg	700	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,2-Dichloropropane	µg/kg	23,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,3-Dichlorobenzene	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
1,4-Dichlorobenzene	µg/kg	17,000,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
2-Butanone (MEK)	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
2-Hexanone	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Acetone	µg/kg	100,000,000	17 U	19 U	17 U	23 U	25 U	23 U	20 U	22 U	23 U	21 U	22 U
Benzene	µg/kg	1,600	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Bromodichloromethane	µg/kg	3,000,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Bromoform	µg/kg	100,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Bromomethane	µg/kg	15,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Carbon disulfide	µg/kg	720,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Carbon tetrachloride	µg/kg	640	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Chlorobenzene	µg/kg	210,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Chloroethane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	**2.6 J**	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Chloroform	µg/kg	540	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Chloromethane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
cis-1,2-Dichloroethene	µg/kg	1,200,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
cis-1,3-Dichloropropene	µg/kg	2,100	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Cyclohexane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Dibromochloromethane	µg/kg	1,300,000	4.3 U	4.8 U	4.3 U	5.8 U*	6.4 U*	5.7 U*	5.1 U*	5.4 U*	5.8 U*	5.3 U*	5.4 U*
Dichlorodifluoromethane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Ethylbenzene	µg/kg	400,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Isopropylbenzene (Cumene)	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Methyl Acetate	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Methyl-tert-butyl ether	µg/kg	8,800,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Methylcyclohexane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U

Table 3
On-Site Soil Sampling Results - Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Remediation Objectives Inhalation (a)	SB25-11	SB26-6	SB26-11	SB28-28	SB29-42	SB31-10	SB32-32	SB33-5	SB33-5 Duplicate	SB33-9	SB34-20
Methylene Chloride	µg/kg	24,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Styrene	µg/kg	1,500,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Tetrachloroethene	µg/kg	20,000	4.3 U	4.8 U	4.3 U	**1.2 J**	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Toluene	µg/kg	650,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
trans-1,2-Dichloroethene	µg/kg	3,100,000	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
trans-1,3-Dichloropropene	µg/kg	2,100	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Trichloroethene	µg/kg	8,900	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	**1.1 J**	**4.0 J**	**3.1 J**	5.3 U	5.4 U
Trichlorofluoromethane	µg/kg	--	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Vinyl chloride	µg/kg	1,100	4.3 U	4.8 U	4.3 U	5.8 U	6.4 U	5.7 U	5.1 U	5.4 U	5.8 U	5.3 U	5.4 U
Xylenes, Total	µg/kg	320,000	13 U	14 U	13 U	17 U	19 U	17 U	15 U	16 U	18 U	16 U	16 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table B - Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties

-- = Indicates there is no established Remediation Objective for this compound

* = Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits

B = Analyte was detected in the associated method blank

E = Result exceeded calibration range

J = Estimated concentration

Illinois EPA = Illinois Environmental Protection Agency

µg/kg = Micrograms per kilogram

U = Compound not detected

VOCs = Volatile organic compounds

Table 3
On-Site Soil Sampling Results - Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Remediation Objectives Inhalation (a)	BG01-5	BG01-8	BG01-8 Duplicate	BG02-4.5	BG02-8
VOCs (SW846 8260)			12/28/2011	12/28/2011	12/28/2011	12/28/2011	12/28/2011
1,1,1-Trichloroethane	µg/kg	1,200,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1,2,2-Tetrachloroethane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1,2-Trichloroethane	µg/kg	1,800,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1-Dichloroethane	µg/kg	1,700,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,1-Dichloroethene	µg/kg	470,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2,4-Trichlorobenzene	µg/kg	3,200,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dibromo-3-chloropropane	µg/kg	17,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dibromoethane (EDB)	µg/kg	120	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dichlorobenzene	µg/kg	560,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dichloroethane	µg/kg	700	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,2-Dichloropropane	µg/kg	23,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,3-Dichlorobenzene	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
1,4-Dichlorobenzene	µg/kg	17,000,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
2-Butanone (MEK)	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
2-Hexanone	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
4-Methyl-2-Pentanone (MIBK)	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Acetone	µg/kg	100,000,000	24 U	23 U	24 U	23 U	23 U
Benzene	µg/kg	1,600	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Bromodichloromethane	µg/kg	3,000,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Bromoform	µg/kg	100,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Bromomethane	µg/kg	15,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Carbon disulfide	µg/kg	720,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Carbon tetrachloride	µg/kg	640	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chlorobenzene	µg/kg	210,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chloroethane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chloroform	µg/kg	540	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Chloromethane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
cis-1,2-Dichloroethene	µg/kg	1,200,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
cis-1,3-Dichloropropene	µg/kg	2,100	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Cyclohexane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Dibromochloromethane	µg/kg	1,300,000	6.1 U*	5.8 U*	6.0* U	5.8 U*	5.9 U*
Dichlorodifluoromethane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Ethylbenzene	µg/kg	400,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Isopropylbenzene (Cumene)	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methyl Acetate	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methyl-tert-butyl ether	µg/kg	8,800,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Methylcyclohexane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U

Table 3
On-Site Soil Sampling Results - Volatile Organic Compounds
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Remediation Objectives Inhalation (a)	BG01-5	BG01-8	BG01-8 Duplicate	BG02-4.5	BG02-8
Methylene Chloride	µg/kg	24,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Styrene	µg/kg	1,500,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Tetrachloroethene	µg/kg	20,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Toluene	µg/kg	650,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
trans-1,2-Dichloroethene	µg/kg	3,100,000	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
trans-1,3-Dichloropropene	µg/kg	2,100	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Trichloroethene	µg/kg	8,900	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Trichlorofluoromethane	µg/kg	--	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Vinyl chloride	µg/kg	1,100	6.1 U	5.8 U	6.0 U	5.8 U	5.9 U
Xylenes, Total	µg/kg	320,000	18 U	18 U	18 U	17 U	18 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table B - Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties

-- = Indicates there is no established Remediation Objective for this compound

* = Laboratory control sample or laboratory conrol sample duplicate exceeds the control limits

B = Analyte was detected in the associated method blank

E = Result exceeded calibration range

J = Estimated concentration

Illinois EPA = Illinois Environmental Protection Agency

µg/kg = Micrograms per kilogram

U = Compound not detected

VOCs = Volatile organic compounds

Table 5
On-Site Soil Gas Sampling Results
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Gas Remediation Objectives (a) Industrial - Table H (5 feet bgs or less)	Soil Gas Remediation Objectives (a) Industrial - Table I (> 5 feet bgs)	SG1-5	SG1-12	SG2-5	SG2-13	SG3-5	SG3-13	SG4-5	SG4-5 Duplicate	SG4-13	SG5-5	SG5-10
VOCs (TO15)				12/21/2011	12/21/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011	12/22/2011
1,1,1-Trichloroethane	ug/m^3	41,000,000	870,000,000	**410,000**	**71,000**	**63**	**6.7**	**550**	**5.3**	**1.1**	**1.6**	**44**	**25,000**	**52,000**
1,1,2,2-Tetrachloroethane	ug/m^3	--	--	4000 U	680 U	1.4 U	1.4 U	19 U	2.4 U	1.4 U	1.4 U	6.1 U	510 U	1,100 U
1,1,2-Trichloroethane	ug/m^3	170,000,000	170,000,000	3200 U	540 U	1.1 U	1.1 U	15 U	1.9 U	1.1 U	1.1 U	4.8 U	410 U	860 U
1,1-Dichloroethane	ug/m^3	4,200,000	500,000,000	2300 U	**1,100**	**2.8**	0.81 U	**42**	**9.8**	0.81 U	0.81 U	**510**	300 U	640 U
1,1-Dichloroethene	ug/m^3	1,600,000	160,000,000	**8,900**	**5,500**	**1.1**	0.79 U	11 U	**1.7**	0.79 U	0.79 U	**500**	**32,000**	**54,000**
1,2-Dichloroethane	ug/m^3	810	76,000	2300 U	400 U	0.81 U	0.81 U	11 U	1.4 U	0.81 U	0.81 U	3.6 U	300 U	640 U
Carbon tetrachloride	ug/m^3	1,500	180,000	3600 U	630 U	1.3 U	1.3 U	18 U	2.2 U	1.3 U	1.3 U	5.6 U	470 U	990 U
Chloroform	ug/m^3	920	87,000	2800 U	490 U	**7.7**	0.98 U	**23**	1.7 U	0.98 U	0.98 U	4.3 U	360 U	770 U
cis-1,2-Dichloroethene	ug/m^3	1,100,000,000	1,100,000,000	2300 U	390 U	0.79 U	0.79 U	**120**	**22**	0.79 U	0.79 U	3.5 U	300 U	620 U
Methylene Chloride	ug/m^3	45,000	4,400,000	5000 U	860 U	1.7 U	1.7 U	24 U	3.0 U	1.7 U	1.7 U	7.7 U	650 U	1,400 U
Tetrachloroethene	ug/m^3	4,000	490,000	**7,100**	680 U	1.4 U	1.4 U	19 U	**2.6**	1.4 U	1.4 U	6.0 U	510 U	1,100 U
trans-1,2-Dichloroethene	ug/m^3	510,000	63,000,000	2300 U	390 U	0.79 U	0.79 U	**30**	1.4 U	0.79 U	0.79 U	3.5 U	300 U	620 U
Trichloroethene	ug/m^3	12,000	1,300,000	**6,400**	**2,500**	**70**	1.1 U	**2,000**	**11**	1.1 U	1.1 U	4.8 U	**940**	**3,000**
Vinyl chloride	ug/m^3	4,800	440,000	1500 U	250 U	0.51 U	0.51 U	7.2 U	0.89 U	0.51 U	0.51 U	2.3 U	190 U	400 U

Notes:
Bold indicates a detection of the noted compound.
Shading indicates a concentration above the Remediation Objective
(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection and Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion Only
-- = Indicates there is no established Remediation Objective for this compound
bgs = Below ground surface
Illinois EPA = Illinois Environmental Protection Agency
ug/m^3 = Micrograms per cubic meter
U = Compound was not detected
VOCs = Volatile organic compounds

Table 5
On-Site Soil Gas Sampling Results
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Gas Remediation Objectives (a) Industrial - Table H (5 feet bgs or less)	Industrial - Table I (> 5 feet bgs)	SG6-5	SG6-10	SG7-5	SG7-10	SG8-5	SG8-10	SG8-10 Duplicate	SG9-5	SG10-5	SG11-5	SG12-5
VOCs (TO15)				12/22/2011	12/22/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/23/2011	12/28/2011	12/28/2011
1,1,1-Trichloroethane	ug/m^3	41,000,000	870,000,000	**14,000**	**19,000**	**310**	**4,400**	**3.1**	**130**	**160**	**1.2**	1.1 U	**1.5**	1.1 U
1,1,2,2-Tetrachloroethane	ug/m^3	--	--	470 U	500 U	11 U	240 U	1.4 U	5.0 U	2.7 U	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/m^3	170,000,000	170,000,000	370 U	400 U	8.7 U	190 U	1.1 U	4.0 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/m^3	4,200,000	500,000,000	280 U	290 U	6.5 U	**880**	0.81 U	**170**	**200**	**38**	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	ug/m^3	1,600,000	160,000,000	**27,000**	**43,000**	**690**	**26,000**	0.79 U	**240**	**260**	**14**	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	ug/m^3	810	76,000	280 U	290 U	6.5 U	140 U	0.81 U	2.9 U	1.6 U	0.81 U	0.81 U	0.81 U	0.81 U
Carbon tetrachloride	ug/m^3	1,500	180,000	430 U	460 U	10 U	220 U	1.3 U	4.6 U	2.5 U	1.3 U	1.3 U	1.3 U	1.3 U
Chloroform	ug/m^3	920	87,000	330 U	350 U	7.8 U	170 U	0.98 U	**6.2**	**6.1**	**2.2**	0.98 U	0.98 U	0.98 U
cis-1,2-Dichloroethene	ug/m^3	1,100,000,000	1,100,000,000	270 U	290 U	**7.8**	140 U	0.79 U	**150**	**160**	**32**	0.79 U	0.79 U	0.79 U
Methylene Chloride	ug/m^3	45,000	4,400,000	590 U	630 U	14 U	310 U	1.7 U	6.3 U	3.5 U	**3.5**	1.7 U	1.7 U	1.7 U
Tetrachloroethene	ug/m^3	4,000	490,000	460 U	490 U	11 U	240 U	1.4 U	4.9 U	2.7 U	1.4 U	1.4 U	1.4 U	1.4 U
trans-1,2-Dichloroethene	ug/m^3	510,000	63,000,000	270 U	290 U	6.3 U	140 U	0.79 U	**19**	**20**	**2.5**	0.79 U	0.79 U	0.79 U
Trichloroethene	ug/m^3	12,000	1,300,000	**470**	**740**	**120**	**190**	1.1 U	**100**	**80**	**72**	1.1 U	**1.1**	**1.2**
Vinyl chloride	ug/m^3	4,800	440,000	170 U	190 U	4.1 U	90 U	0.51 U	1.9 U	1.0 U	**48**	0.51 U	0.51 U	0.51 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection and Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion Only

-- = Indicates there is no established Remediation Objective for this compounc

bgs = Below ground surface

Illinois EPA = Illinois Environmental Protection Agency

ug/m^3 = Micrograms per cubic meter

U = Compound was not detected

VOCs = Volatile organic compounds

Table 5
On-Site Soil Gas Sampling Results
GE Morrison Facility
Morrison, Illinois

Compound	Units	Soil Gas Remediation Objectives (a) Industrial - Table H (5 feet bgs or less)	Industrial - Table I (> 5 feet bgs)	SG12-5 Duplicate	SG13-5	Trip Blank
VOCs (TO15)				12/28/2011	12/28/2011	12/28/2011
1,1,1-Trichloroethane	ug/m^3	41,000,000	870,000,000	1.1 U	1.1 U	1.1 U
1,1,2,2-Tetrachloroethane	ug/m^3	–	–	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	ug/m^3	170,000,000	170,000,000	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	ug/m^3	4,200,000	500,000,000	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	ug/m^3	1,600,000	160,000,000	0.79 U	0.79 U	0.79 U
1,2-Dichloroethane	ug/m^3	810	76,000	0.81 U	0.81 U	0.81 U
Carbon tetrachloride	ug/m^3	1,500	180,000	1.3 U	1.3 U	1.3 U
Chloroform	ug/m^3	920	87,000	0.98 U	0.98 U	0.98 U
cis-1,2-Dichloroethene	ug/m^3	1,100,000,000	1,100,000,000	0.79 U	0.79 U	0.79 U
Methylene Chloride	ug/m^3	45,000	4,400,000	1.7 U	1.7 U	1.7 U
Tetrachloroethene	ug/m^3	4,000	490,000	1.4 U	1.4 U	1.4 U
trans-1,2-Dichloroethene	ug/m^3	510,000	63,000,000	0.79 U	0.79 U	0.79 U
Trichloroethene	ug/m^3	12,000	1,300,000	**1.2**	1.1 U	1.1 U
Vinyl chloride	ug/m^3	4,800	440,000	0.51 U	0.51 U	0.51 U

Notes:

Bold indicates a detection of the noted compound.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection and Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion Only

– = Indicates there is no established Remediation Objective for this compoun(

bgs = Below ground surface

Illinois EPA = Illinois Environmental Protection Agency

ug/m^3 = Micrograms per cubic meter

U = Compound was not detected

VOCs = Volatile organic compounds

Table 6
Off-Site Grab Groundwater Sampling Results
GE Morrison Facility
Morrison, Illinois

Compound	Units	Groundwater Remediation Objectives (a) Residential	SB-35-20 2/14/2012	SB40-12 2/14/2012	SB40-12 Duplicate 2/14/2012	SB42-15 2/15/2012	SB43-24 2/15/2012	SB44-24 2/15/2012	SB-45-18 8/2/2012
VOCs (SW846 8260)									
1,1,1-Trichloroethane	µg/l	1,300,000	**850**	5.0 U	5.0 U	5.0 U	5.0 U	**11**	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	4,400,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	750,000	**67**	5.0 U	5.0 U	**1.5 J**	5.0 U	**4.4 J**	5.0 U
1,1-Dichloroethene	µg/l	61,000	**690**	5.0 U	5.0 U	5.0 U	5.0 U	**15**	5.0 U
1,2,4-Trichlorobenzene	µg/l	35,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**7.8 B***
1,2-Dibromo-3-chloropropane	µg/l	29	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	µg/l	73	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/l	160,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	500	**13 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	670	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	79,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	220,000,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	1,000,000,000	200 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	µg/l	410	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	6,700,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/l	170,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	µg/l	--	50 U*	5.0 U*	5.0 U*	5.0 U*	5.0 U*	5.0 U*	5.0 U
Carbon disulfide	µg/l	170,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	52	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	130,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	170	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	3,500,000	**14 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**38**
cis-1,3-Dichloropropene	µg/l	420	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/l	6,800	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	6,800	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	1,300	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	6,200	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Acetate	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride	µg/l	12,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	30,000,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/l	310,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	260	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/l	530,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	58,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.98 J**
trans-1,3-Dichloropropene	µg/l	420	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/l	1,100	**170**	5.0 U	5.0 U	5.0 U	5.0 U	**8.5**	5.0 U
Trichlorofluoromethane	µg/l	62,000	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U*
Vinyl chloride	µg/l	65	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes, Total	µg/l	96,000	150 U	15 U	15 U	15 U	15 U	15 U	15 U

Notes:

Bold indicates a detection of the noted compound.

(a) Illinois EPA Section 742, Appendix B, Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route- Diffusion Only

-- = Indicates there is no established Remediation Objective for this compound

* = LCS or LCSD exceeds the control limits

B = Analyte was detected in the associated method blank

Illinois EPA = Illinois Environmental Protection Agency

J = Estimated concentration

µg/l = Micrograms per liter

U = Compound not detected

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

VOCs = Volatile organic compounds

Table 6
Off-Site Grab Groundwater Sampling Results
GE Morrison Facility
Morrison, Illinois

Compound	Units	Groundwater Remediation Objectives (a) Residential	SB46-18 8/2/2012	SB47-11 8/2/2012	SB48-15.5 8/2/2012	SB49-24 8/3/2012	SB50-17 8/3/2012	SB51-16 8/3/2012	SB51-16 Duplicate 8/3/2012
VOCs (SW846 8260)									
1,1,1-Trichloroethane	µg/l	1,300,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	4,400,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	750,000	5.0 U	5.0 U	5.0 U	5.0 U	**6.8**	5.0 U	5.0 U
1,1-Dichloroethene	µg/l	61,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/l	35,000	5.0 U*	**1.1 JB***	5.0 U*	5.0 U*	5.0 U*	**0.55 JB***	**0.45 JB***
1,2-Dibromo-3-chloropropane	µg/l	29	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	µg/l	73	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/l	160,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	500	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	670	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	79,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	220,000,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/l	--	5.0 U*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/l	1,000,000,000	20 U*	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	µg/l	410	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/l	6,700,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/l	170,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/l	170,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/l	52	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/l	130,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	µg/l	170	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	3,500,000	5.0 U	5.0 U	5.0 U	5.0 U	**3.7 J**	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/l	420	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/l	6,800	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	6,800	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/l	1,300	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	6,200	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Acetate	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride	µg/l	12,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	30,000,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/l	310,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/l	260	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/l	530,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	58,000	5.0 U	5.0 U	5.0 U	5.0 U	**1.0 J**	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	420	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/l	1,100	5.0 U	5.0 U	5.0 U	5.0 U	**4.1 J**	5.0 U	5.0 U
Trichlorofluoromethane	µg/l	62,000	5.0 U	5.0 U*	5.0 U*	5.0 U*	5.0 U*	5.0 U*	5.0 U*
Vinyl chloride	µg/l	65	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes, Total	µg/l	96,000	15 U	15 U	15 U	15 U	15 U	15 U	15 U

Notes:

Bold indicates a detection of the noted compound.

(a) Illinois EPA Section 742, Appendix B, Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route- Diffusion Only

-- = Indicates there is no established Remediation Objective for this compound

* = LCS or LCSD exceeds the control limits

B = Analyte was detected in the associated method blank

Illinois EPA = Illinois Environmental Protection Agency

J = Estimated concentration

µg/l = Micrograms per liter

U = Compound not detected

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

VOCs = Volatile organic compounds

Table 6
Off-Site Grab Groundwater Sampling Results
GE Morrison Facility
Morrison, Illinois

Compound	Units	Groundwater Remediation Objectives (a) Residential	MW10 (5-9) 10/30/2012	MW10 (69-74) 10/31/2012
VOCs (SW846 8260)				
1,1,1-Trichloroethane	µg/l	1,300,000	**11**	5.0 U
1,1,2,2-Tetrachloroethane	µg/l	--	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/l	4,400,000	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	--	5.0 U	5.0 U
1,1-Dichloroethane	µg/l	750,000	**22**	5.0 U
1,1-Dichloroethene	µg/l	61,000	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/l	35,000	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	µg/l	29	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	µg/l	73	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/l	160,000	5.0 U	5.0 U
1,2-Dichloroethane	µg/l	500	5.0 U	5.0 U
1,2-Dichloropropane	µg/l	670	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/l	--	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/l	79,000	5.0 U	5.0 U
2-Butanone (MEK)	µg/l	220,000,000	5.0 U	5.0 U
2-Hexanone	µg/l	--	5.0 U	5.0 U
4-Methyl-2-Pentanone (MIBK)	µg/l	--	5.0 U	5.0 U
Acetone	µg/l	1,000,000,000	20 U	20 U
Benzene	µg/l	410	5.0 U	5.0 U
Bromodichloromethane	µg/l	6,700,000	5.0 U	5.0 U
Bromoform	µg/l	170,000	5.0 U	5.0 U
Bromomethane	µg/l	--	5.0 U	5.0 U
Carbon disulfide	µg/l	170,000	5.0 U	5.0 U
Carbon tetrachloride	µg/l	52	5.0 U	5.0 U
Chlorobenzene	µg/l	130,000	**0.91 J**	5.0 U
Chloroethane	µg/l	--	5.0 U	5.0 U
Chloroform	µg/l	170	5.0 U	5.0 U
Chloromethane	µg/l	--	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/l	3,500,000	**62**	5.0 U
cis-1,3-Dichloropropene	µg/l	420	5.0 U	5.0 U
Cyclohexane	µg/l	--	5.0 U	5.0 U
Dibromochloromethane	µg/l	6,800	5.0 U	5.0 U
Dichlorodifluoromethane	µg/l	6,800	5.0 U	5.0 U
Ethylbenzene	µg/l	1,300	5.0 U	5.0 U
Isopropylbenzene (Cumene)	µg/l	6,200	5.0 U	5.0 U
Methyl Acetate	µg/l	--	5.0 U	5.0 U
Methylcyclohexane	µg/l	--	5.0 U	5.0 U
Methylene Chloride	µg/l	12,000	5.0 U	5.0 U
Methyl-tert-butyl ether	µg/l	30,000,000	5.0 U	5.0 U
Styrene	µg/l	310,000	5.0 U	5.0 U
Tetrachloroethene	µg/l	260	5.0 U	5.0 U
Toluene	µg/l	530,000	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/l	58,000	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/l	420	5.0 U	5.0 U
Trichloroethene	µg/l	1,100	**13**	5.0 U
Trichlorofluoromethane	µg/l	62,000	5.0 U	5.0 U
Vinyl chloride	µg/l	65	**7.9**	5.0 U
Xylenes, Total	µg/l	96,000	15 U	15 U

Notes:

Bold indicates a detection of the noted compound.

(a) Illinois EPA Section 742, Appendix B, Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route- Diffusion Only

-- = Indicates there is no established Remediation Objective for this compound

* = LCS or LCSD exceeds the control limits

B = Analyte was detected in the associated method blank

Illinois EPA = Illinois Environmental Protection Agency

J = Estimated concentration

µg/l = Micrograms per liter

U = Compound not detected

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

VOCs = Volatile organic compounds

Table 8
Residential and Commercial Sump Sample Results
GE Morrison Facility
Morrison, Illinois

Constituent	Groundwater Remediation Objectives (a)	Units						
			Property ID:	801 W. Morris	805 W. Morris	807 W. Morris	811 W. Morris	903 W. Morris
			Location ID:	801-SUMP	805-SUMP	807-SUMP	811-SUMP	903-SUMP
		Units	Date Collected:	03/08/12	03/07/12	03/07/12	03/13/12	03/08/12
VOCs (ug/L)								
1,1,1,2-Tetrachloroethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	ug/L		1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,1,2-trichloro-1,2,2-trifluoroethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	ug/L		1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	700	ug/L		1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	ug/L		1 U	1 U	1 U	1 U	1 U
1,1-Dichloropropene	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	70	ug/L		1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	-	ug/L		1 U	1 U	1 U	**2.3**	1 U
1,2-Dibromo-3-chloropropane	0.2	ug/L		1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	0.05	ug/L		1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	600	ug/L		1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	ug/L		**2**	1 U	1 U	1 U	1 U
1,2-Dichloroethene (total)	170	ug/L		1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	ug/L		1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	-	ug/L		1 U	1 U	1 U	**0.47 J**	1 U
1,3-Dichlorobenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane	-	ug/L		1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	75	ug/L		1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	-	ug/L		50 U	50 U	50 U	50 U	50 U
2,2-Dichloropropane	-	ug/L		1 U	1 U	1 U	1 U	1 U
2-Butanone	-	ug/L		5 U	**13**	5 U	5 U	5 U
2-Chloroethylvinylether	-	ug/L		1 U	1 U	1 U	1 U	1 U
2-Chlorotoluene	-	ug/L		1 U	1 U	1 U	1 U	1 U
2-Hexanone	-	ug/L		5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	-	ug/L		1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	-	ug/L		5 U	5 U	5 U	5 U	5 U
Acetone	6300	ug/L		**2.3 J**	**20**	**12**	**13**	5 U
Benzene	5	ug/L		1 U	1 U	1 U	**0.74 J**	1 U
Bromobenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
Bromochloromethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	0.2	ug/L		1 U	1 U	1 U	1 U	1 U
Bromoform	1	ug/L		1 U	1 U	1 U	1 U	1 U
Bromomethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	700	ug/L		1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	ug/L		1 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	ug/L		1 U	1 U	1 U	1 U	1 U
Chloroethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Chloroform	0.2	ug/L		1 U	1 U	1 U	1 U	1 U
Chloromethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	ug/L		1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1	ug/L		1 U	1 U	1 U	1 U	1 U
Cyclohexane	-	ug/L		1 U	1 U	1 U	1 U	1 U

Table 8
Residential and Commercial Sump Sample Results
GE Morrison Facility
Morrison, Illinois

Constituent	Groundwater Remediation Objectives (a)	Units	Property ID:	801 W. Morris	805 W. Morris	807 W. Morris	811 W. Morris	903 W. Morris
			Location ID:	801-SUMP	805-SUMP	807-SUMP	811-SUMP	903-SUMP
			Date Collected:	03/08/12	03/07/12	03/07/12	03/13/12	03/08/12
VOCs (ug/L)								
Dibromochloromethane	140	ug/L		1 U	1 U	1 U	1 U	1 U
Dibromomethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	ug/L		1 U	1 U	1 U	**0.84 J**	1 U
Hexachlorobutadiene	-	ug/L		1 U	1 U	1 U	1 U	1 U
Iodomethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Isobutanol	-	ug/L		50 U	50 U	50 U	50 U	50 U
Isopropylbenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
m&p-Xylene	10000	ug/L		1 U	1 U	1 U	**3.7**	1 U
Methyl acetate	-	ug/L		1 U	**5.1**	1 U	1 U	1 U
Methyl tert-butyl ether	70	ug/L		1 U	1 U	1 U	1 U	1 U
Methylcyclohexane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	ug/L		1 U	1 U	1 U	1 U	1 U
Naphthalene	140	ug/L		1 U	1 U	1 U	**1**	1 U
n-Butylbenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
o-Xylene	10000	ug/L		1 U	1 U	1 U	**2**	1 U
p-Isopropyltoluene	-	ug/L		1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
Styrene	100	ug/L		1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	-	ug/L		1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	ug/L		1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	-	ug/L		14 U	**38**	14 U	**3.8 J**	14 U
Toluene	1000	ug/L		1 U	**0.20 J**	1 U	**4**	1 U
trans-1,2-Dichloroethene	100	ug/L		1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1	ug/L		1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	ug/L		1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	-	ug/L		1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	7000	ug/L		1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	ug/L		1 U	1 U	1 U	1 U	1 U
Xylenes (total)	10000	ug/L		1 U	1 U	1 U	**5.8**	1 U

Notes:
Bold indicates a detection of the noted compound.
(a) Illinois EPA Section 742, Appendix B, Table I - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route- Diffusion Only
- = Indicates there is no established Remediation Objective for this compound
Illinois EPA = Illinois Environmental Protection Agency
J = Estimated concentration
NA = Not available
ug/L = Micrograms per liter
U = Compound not detected
VOCs = Volatile organic compounds

Table 9
Non-Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)		Parcel Tax ID:	903 W. Morris Street - Commercial										
				01813276002										
			Building Construction:	Basement and Crawl Space										
	Commercial Soil Gas (<5 feet) (a)	Commercial Indoor Air (b)	Location ID: Area of Building: Date Collected:	903-IAB-1 Basement 03/09/12	903-IAB-1 Basement 12/06/12	903-IAB-1 Basement 03/27/13	903-IAB-1 Basement 06/25/13	903-IAB-1 Basement 09/23/13	903-IAB-2 Basement 03/09/12	903-IAB-2 Basement 12/06/12	903-IAB-2 Basement 03/27/13	903-IAB-2 Basement 06/25/13	903-IAB-2 Basement 09/23/13	903-IAB-2 Basement 01/30/14
Volatile Organics Low-Level (ug/m3)														
1,1,1-Trichloroethane	41,000,000	7,300		0.22 U	0.77	0.55	0.87	0.78	0.22 U	0.68	0.55	1.1	0.7	0.79
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069 U
1,1,2-Trichloroethane	170,000,000	29		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.055 U
1,1-Dichloroethane	4,200,000	730		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.04 U
1,1-Dichloroethene	1,600,000	290		0.16 U	0.43	0.30	0.38	0.16 U	0.16 U	0.53	0.21	0.33	0.16 U	0.49
1,2-Dichloroethane	810	0.16		0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.081 U
Carbon Tetrachloride	1,500	0.68		0.44	0.46	0.47	0.47	0.66	0.36	0.43	0.54	0.91	0.63	0.44
Chloroform	920	0.18		0.2 U	0.2 U	0.47	0.31	0.22	0.2 U	0.51	0.2	0.47	0.36	0.16
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.35	0.18	0.16 U	0.04 U
Methylene Chloride	45,000	410		1.4 U	1.4 U	1.9	1.4 U	1.4 U	1.4	1.4 U	1.4 U	1.4 U	1.4 U	0.45
Tetrachloroethene	4,000	16		0.27 U	0.27 U	0.27 U	0.57	0.27 U	0.27 U	0.27 U	0.27 U	0.66	0.27 U	0.068 U
trans-1,2-Dichloroethene	510,000	88		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.04 U
Trichloroethene	12,000	1		0.21 U	0.21 U	0.39	0.27	0.57	0.21 U	0.21 U	0.39	0.36	0.4	0.14
Vinyl Chloride	4,800	0.93		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.051 U

Notes:
Shading indicates a concentration above the Remediation Objective
(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation
Objectives for the Indoor Inhalation Exposure Route- Diffusion and Advection
(b) Indoor Air Remediation Objectives
[ ] = Duplicate values
Illinois EPA = Illinois Environmental Protection Agency
NA = not available
ug/m3 = Micrograms per cubic meter
U = Compound not detected

Table 9
Non-Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)		Parcel Tax ID:	903 W. Morris Street - Commercial 01813276002										
			Building Construction:	Basement and Crawl Space										
	Commercial Soil Gas (<5 feet) (a)	Commercial Indoor Air (b)	Location ID: Area of Building: Date Collected:	903-SSP-1 Below Bsmt. 03/09/12	903-SSP-1 Below Bsmt. 12/06/12	903-SSP-1R Below Bsmt. 03/29/13	903-SSP-1R Below Bsmt. 6/26/2013	903-SSP-1R Below Bsmt. 9/23/2013	903-SSP-2 Below Bsmt. 03/09/12	903-SSP-2 Below Bsmt. 12/06/12	903-SSP-2R Below Bsmt. 03/29/13	903-SSP-2R Below Bsmt. 06/26/13	903-SSP-2R Below Bsmt. 09/23/13	903-SSP-2R Below Bsmt. 01/30/14
Volatile Organics Low-Level (ug/m3)														
1,1,1-Trichloroethane	41,000,000	7,300		340	4,600	4,300 [3,800]	4,600 [5,000]	7,200 [7,100]	150 [170]	160 [330]	55	21	24	21
1,1,2,2-Tetrachloroethane	NA	NA		2.7 U	82 U	120 U [55 U]	32 U [33 U]	56 U [55 U]	1.4 U [1.4 U]	2.1 U [3.2 U]	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	170,000,000	29		2.2 U	65 U	92 U [44 U]	25 U [26 U]	44 U [44 U]	1.1 U [1.1 U]	1.6 U [2.5 U]	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	4,200,000	730		1.9	51	68 U [53]	48 [53]	89 [83]	0.81 U [0.81 U]	1.2 U [1.9 U]	0.81 U	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	1,600,000	290		120	6,100	3,400 [2,900]	2,000 [2,200]	6,100 [6,100]	0.79 U [0.79 U]	1.2 U [1.8 U]	1.9	4.9	0.79 U	15
1,2-Dichloroethane	810	0.16		1.6 U	48 U	68 U [33 U]	19 U [19 U]	33 U [33 U]	0.81 U [0.81 U]	1.2 U [1.9 U]	0.81 U	0.81 U	0.81 U	0.81 U
Carbon Tetrachloride	1,500	0.68		2.5 U	75 U	110 U [51 U]	29 U [30 U]	51 U [51U]	1.3 U [1.3 U]	1.9 U [2.9 U]	1.3 U	1.3 U	1.3 U	1.3 U
Chloroform	920	0.18		27	58 U	82 U [39 U]	24 [26]	40 [39 U]	0.98 U [0.98 U]	1.5 U [2.2 U]	0.98 U	0.98 U	0.98 U	0.98 U
cis-1,2-Dichloroethene	1,100,000,000	NA		1.6 U	47 U	67 U [32 U]	18 U [19 U]	32 U [32 U]	0.79 U [0.79 U]	1.2 U [1.8 U]	0.79 U	0.79 U	0.79 U	0.79 U
Methylene Chloride	45,000	410		3.5 U	100 U	150 U [70 U]	40 U [41 U]	70 U [70 U]	1.7 U [1.7 U]	6.6 [4.0 U]	1.7 U	1.7 U	1.7 U	1.7 U
Tetrachloroethene	4,000	16		7.2	81 U	110 U [55 U]	48 [48]	97 [94]	2.1 [2.4]	2.3 [4.8]	1.4 U	1.4 U	1.4 U	1.4 U
trans-1,2-Dichloroethene	510,000	88		1.6 U	47 U	67 U [32 U]	18 U [19 U]	32 U [32 U]	0.79 U [0.79 U]	1.2 U [1.8 U]	0.79 U	0.79 U	0.79 U	0.79 U
Trichloroethene	12,000	1		44	780	950 [810]	1,000 [1,100]	1,400 [1,400]	1.1 U [1.1 U]	1.6 U [2.5 U]	1.1 U	2.6	1.1 U	6.6
Vinyl Chloride	4,800	0.93		1 U	31 U	43 U [21 U]	12 U [12 U]	21 U [21 U]	0.51 U [0.51 U]	0.77 U [1.2 U]	0.51 U	0.51 U	0.51 U	0.51 U

Notes:
Shading indicates a concentration above the Remediation Objective
(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation
Objectives for the Indoor Inhalation Exposure Route- Diffusion and Advection
(b) Indoor Air Remediation Objectives
[ ] = Duplicate values
Illinois EPA = Illinois Environmental Protection Agency
NA = not available
ug/m3 = Micrograms per cubic meter
U = Compound not detected

Table 9
Non-Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)		Parcel Tax ID: Building Construction:	Ambient Air									
	Commercial Soil Gas (<5 feet) (a)	Commercial Indoor Air (b)	Location ID:	AMB-1	AMB-1	AMB	AMB	AMB-1	AMB-2	AMB-1	AMB-1	AMB-1	AMB-1
			Area of Building: Date Collected:	03/07/12	03/09/12	03/13/12	03/14/12	12/04/12	12/06/12	3/27/13	6/25/13	9/23/2013	1/30/2014
Volatile Organics Low-Level (ug/m3)													
1,1,1-Trichloroethane	41,000,000	7,300		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2-Trichloroethane	170,000,000	29		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1-Dichloroethane	4,200,000	730		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,1-Dichloroethene	1,600,000	290		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichloroethane	810	0.16		0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Carbon Tetrachloride	1,500	0.68		0.4	0.4	0.41	0.37	0.51	0.47	0.46	0.41	0.44	0.43
Chloroform	920	0.18		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.21	0.2 U	0.2 U	0.066
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U	0.16 U	0.3	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Methylene Chloride	45,000	410		1.4 U	1.4 U	2.6	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.43
Tetrachloroethene	4,000	16		0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.068 U
trans-1,2-Dichloroethene	510,000	88		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	12,000	1		0.31	0.21 U	0.39	0.21 U	0.21 U	0.21 U	0.21 U	0.26	0.5	0.054 U
Vinyl Chloride	4,800	0.93		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Notes:

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation
Objectives for the Indoor Inhalation Exposure Route- Diffusion and Advection

(b) Indoor Air Remediation Objectives

[] = Duplicate values

Illinois EPA = Illinois Environmental Protection Agency

NA = not available

ug/m3 = Micrograms per cubic meter

U = Compound not detected

Table 10
Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)		Parcel Tax ID:	304 Oak Street - Residential						814 W. Park Street - Residential			
				0813277001						0813277008			
			Building Construction:	Slab on Grade						Basement			
	Residential Soil Gas (<5 feet) (a)	Residential Indoor Air (b)	Location ID: Area of Building: Date Collected:	304-IAF-1 1st Floor 03/13/12	304-IAF-1 1st Floor 12/04/12	304-IAF-2 1st Floor 03/13/12	304-IAF-2 1st Floor 12/04/12	304-SSP-1 Below 1st Floor 03/14/12	304-SSP-2 Below 1st Floor 03/14/12	814-IAB Basement 03/13/12	814-IAB Basement 12/06/12	814-SSP-1 Below Bsmt. 03/14/12	814-SSP-1 Below Bsmt. 12/06/12
Volatile Organics Low-Level (ug/m3)													
1,1,1-Trichloroethane	6,600,000	5,200		2.2 [2.4]	0.22 U	3	0.22 U [0.22 U]	950 [890]	3700	0.27	0.22	140	99 [92]
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U [0.27 U]	0.27 U	0.27 U	0.27 U [0.27 U]	21 U [23 U]	55 U	0.27 U	0.27 U	1.4 U	1.4 U [1.4 U]
1,1,2-Trichloroethane	170,000,000	21		0.22 U [0.22 U]	0.22 U	0.22 U	0.22 U [0.22 U]	16 U [18 U]	44 U	0.22 U	0.22 U	1.1 U	1.1 U [1.1 U]
1,1-Dichloroethane	690,000	520		0.16 U [0.16 U]	0.16 U	0.16 U	0.16 U [0.16 U]	16 [14]	62	0.16 U	0.16 U	0.81 U	0.81 U [0.81 U]
1,1-Dichloroethene	240,000	210		3.8 [3.7]	0.16 U	6.2	0.16 U [0.16 U]	2000 [1900]	4700	0.16 U	0.16 U	0.79 U	0.79 U [0.79 U]
1,2-Dichloroethane	99	0.09		0.54 [0.56]	0.32 U	2.3	0.43 [0.34]	12 U [14 U]	32 U	0.32 U	0.32 U	0.81 U	0.81 U [0.81 U]
Carbon Tetrachloride	210	0.41		0.41 [0.44]	0.49	0.36	0.64 [0.51]	19 U [21 U]	50 U	0.42	0.41	1.3 U	1.3 U [1.3 U]
Chloroform	110	0.11		0.20 U [0.20 U]	0.3	0.2 U	1.2 [0.90]	19 [17 U]	39 U	0.2 U	1.3	0.98 U	0.98 U [0.98 U]
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U [0.17]	0.16 U	0.26	0.16 U [0.16 U]	12 U [13 U]	32 U	0.2	0.16 U	0.79 U	0.79 U [0.79 U]
Methylene Chloride	5,600	240		2.1 [2.2]	1.4 U	12	1.4 U [1.4 U]	26 U [29 U]	70 U	1.9	1.4 U	1.7 U	1.7 U [1.7 U]
Tetrachloroethene	550	9.4		0.27 U [0.27 U]	0.27 U	0.31	0.27 U [0.27 U]	20 U [23 U]	72	0.27 U	0.27 U	1.4 U	1.4 U [1.4 U]
trans-1,2-Dichloroethene	85,000	63		0.16 U [0.16 U]	0.16 U	0.16 U	0.16 U [0.16 U]	12 U [13 U]	32 U	0.16 U	0.16 U	0.79 U	0.79 U [0.79 U]
Trichloroethene	1,500	0.59		1.3 [1.4]	0.21 U	1.4	0.21 U [0.21 U]	160 [140]	**1700**	0.41	0.21 U	2.2	2.2 [2.2]
Vinyl Chloride	290	0.28		0.20 U [0.20 U]	0.2 U	0.2 U	0.20 U [0.20 U]	7.7 U [8.6 U]	21 U	0.2 U	0.2 U	0.51 U	0.51 U [0.51 U]

Notes:

Bold indicates sub-slab data > Illinois EPA Remediation Objectives.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection (Sub-Slab = <5')

(b) Indoor Air Remediation Objectives

[ ] = duplicate values

Illinois EPA = Illinois Environmental Protection Agency

J = Estimated concentration

NA = not available

R = The sample results are rejected as unusable. The analyte may or may not be present in the sample.

ug/m3 = micrograms per cubic meter

U = Compound not detected

Table 10
Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)			811 W. Morris Street - Residential				809 W. Morris Street - Residential			
			Parcel Tax ID:	01813277002				01813277003			
			Building Construction:	Basement				Basement			
	Residential Soil Gas (<5 feet) (a)	Residential Indoor Air (b)	Location ID: / Area of Building: / Date Collected:	811-IAB Basement 03/13/12	811-IAB Basement 12/06/12	811-SSP-1 Below Bsmt. 03/13/12	811-SSP-1 Below Bsmt. 12/06/12	809-IAB Basement 03/09/12	809-IAB Basement 12/04/12	809-SSP-1 Below Bsmt. 03/09/12	809-SSP-1 Below Bsmt. 12/04/12
Volatile Organics Low-Level (ug/m3)											
1,1,1-Trichloroethane	6,600,000	5,200		0.22 U	0.22 U	3.3	4.6	0.22 U	0.22 U	2.3	1.5
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U	0.27 U	1.4 U	1.4 U	0.27 U	0.27 U	1.4 U	1.4 U
1,1,2-Trichloroethane	170,000,000	21		0.22 U	0.22 U	1.1 U	1.1 U	0.22 U	0.22 U	1.1 U	1.1 U
1,1-Dichloroethane	690,000	520		0.16 U	0.16 U	0.81 U	0.81 U	0.16 U	0.16 U	0.81 U	0.81 U
1,1-Dichloroethene	240,000	210		0.16 U	0.16 U	0.79 U	0.79 U	0.16 U	0.16 U	0.79 U	0.79 U
1,2-Dichloroethane	99	0.09		0.32 U	0.55	0.81 U	0.81 U	1.9	4	0.81 U	0.81 U
Carbon Tetrachloride	210	0.41		0.4	0.41	1.3 U	1.3 U	0.41	0.45	1.3 U	1.3 U
Chloroform	110	0.11		0.2 U	0.2 U	0.98 U	0.98 U	0.2 U	0.62	0.98 U	0.98 U
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U	0.16 U	0.79 U	0.79 U	0.16 U	0.16 U	0.79 U	0.79 U
Methylene Chloride	5,600	240		1.4 U	1.4 U	11	1.7 U	2.6	1.4 U	1.7 U	1.7 U
Tetrachloroethene	550	9.4		0.27 U	0.27 U	1.4 U	4.3	0.27 U	0.27 U	1.4 U	1.4 U
trans-1,2-Dichloroethene	85,000	63		0.16 U	0.16 U	0.79 U	0.79 U	0.16 U	0.16 U	0.79 U	0.79 U
Trichloroethene	1,500	0.59		0.21 U	0.21 U	1.3	1.1 U	0.21 U	0.35	1.1 U	1.1 U
Vinyl Chloride	290	0.28		0.2 U	0.2 U	0.51 U	0.51 U	0.2 U	0.2 U	0.51 U	0.51 U

Notes:

Bold indicates sub-slab data > Illinois EPA Remediation Objectives.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection (Sub-Slab = <5')

(b) Indoor Air Remediation Objectives

[ ] = duplicate values

Illinois EPA = Illinois Environmental Protection Agency
J = Estimated concentration
NA = not available
R = The sample results are rejected as unusable. The analyte may or may not be present in the sample.
ug/m3 = micrograms per cubic meter
U = Compound not detected

Table 10
Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)			807 W. Morris Street - Residential					
			Parcel Tax ID:	01813277004					
			Building Construction:	Basement and Crawl Space					
	Residential Soil Gas (<5 feet) (a)	Residential Indoor Air (b)	Location ID: / Area of Building: / Date Collected:	807-IAB Basement 03/07/12	807-IAB Basement 12/05/12	807-SSP-1 Below Bsmt. 03/07/12	807-SSP-1 Below Bsmt. 12/05/12	807-SSP-2 Below Bsmt. 03/07/12	807-SSP-2 Below Bsmt. 12/05/12
Volatile Organics Low-Level (ug/m3)									
1,1,1-Trichloroethane	6,600,000	5,200		0.22 U [0.22 U]	0.22 U	38	26	30	20 J
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U [0.27 U]	0.27 U	1.4 U	1.4 U	1.4 U	R
1,1,2-Trichloroethane	170,000,000	21		0.22 U [0.22 U]	0.22 U	1.1 U	1.1 U	1.1 U	R
1,1-Dichloroethane	690,000	520		0.16 U [0.16 U]	0.16 U	22	2.9	36	7.7 J
1,1-Dichloroethene	240,000	210		0.16 U [0.16 U]	0.16 U	0.79 U	0.79 U	0.79 U	1.1 J
1,2-Dichloroethane	99	0.09		0.32 U [0.32 U]	0.46	0.81 U	0.81 U	0.81 U	R
Carbon Tetrachloride	210	0.41		0.43 [0.52]	0.45	1.3 U	1.2	1.3 U	R
Chloroform	110	0.11		0.20 U [0.20 U]	0.22	0.98 U	0.98 U	0.98 U	R
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U [0.16 U]	0.16 U	0.79 U	0.79 U	0.79 U	R
Methylene Chloride	5,600	240		1.4 U [1.5]	1.4	1.7 U	1.7 U	1.7 U	R
Tetrachloroethene	550	9.4		0.27 U [0.27 U]	0.27 U	1.4 U	1.4 U	1.4 U	R
trans-1,2-Dichloroethene	85,000	63		0.16 U [0.16 U]	0.16 U	0.79 U	0.79 U	0.79 U	R
Trichloroethene	1,500	0.59		0.21 U [0.21 U]	0.21 U	1.4	1.1 U	2.5	1.7 J
Vinyl Chloride	290	0.28		0.20 U [0.20 U]	0.2 U	0.51 U	0.51 U	0.51 U	R

Notes:

Bold indicates sub-slab data > Illinois EPA Remediation Objectives.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection (Sub-Slab = <5')

(b) Indoor Air Remediation Objectives

[ ] = duplicate values

Illinois EPA = Illinois Environmental Protection Agency
J = Estimated concentration
NA = not available
R = The sample results are rejected as unusable. The analyte may or may not be present in the sample.
ug/m3 = micrograms per cubic meter
U = Compound not detected

Table 10
Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)			805 W. Morris Street - Residential						803 W. Morris Street - Residential			
			Parcel Tax ID:	01813277005						01813277006			
			Building Construction:	Basement						Slab on Grade			
	Residential Soil Gas (<5 feet) (a)	Residential Indoor Air (b)	Location ID: / Area of Building: / Date Collected:	805-IAB Basement 03/07/12	805-IAB Basement 12/06/12	805-SSP-1 Below Bsmt. 03/07/12	805-SSP-1 Below Bsmt. 12/06/12	805-SSP-2 Below Bsmt. 03/07/12	805-SSP-2 Below Bsmt. 12/06/12	803-IAB 1st Floor 03/13/12	803-IAB 1st Floor 12/06/12	803-SSP-1 Below 1st Floor 03/14/12	803-SSP-1 Below 1st Floor 12/06/12
Volatile Organics Low-Level (ug/m3)													
1,1,1-Trichloroethane	6,600,000	5,200		0.22 U	0.22 U	52	38	1.1 U	2.8	0.22 U	0.22 U	1.1 U	1.1 U
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U	0.27 U	1.4 U	1.4 U	1.4 U	1.4 U	0.27 U	0.27 U	1.4 U	1.4 U
1,1,2-Trichloroethane	170,000,000	21		0.22 U	0.22 U	1.1 U	1.1 U	1.1 U	1.1 U	0.22 U	0.22 U	1.1 U	1.1 U
1,1-Dichloroethane	690,000	520		0.16 U	0.16 U	4.1	2.4	0.81 U	0.81 U	0.16 U	0.16 U	0.81 U	0.81 U
1,1-Dichloroethene	240,000	210		0.16 U	0.16 U	0.79 U	0.79 U	0.79 U	0.79 U	0.16 U	0.16 U	0.79 U	0.79 U
1,2-Dichloroethane	99	0.09		0.32 U	0.32 U	0.81 U	0.81 U	0.81 U	0.81 U	0.36	1.1	0.81 U	0.81 U
Carbon Tetrachloride	210	0.41		0.41	0.47	1.3 U	1.3 U	1.3 U	1.3 U	0.47	0.46	1.3 U	1.3 U
Chloroform	110	0.11		0.2 U	0.36	0.98 U	0.98 U	1.6	0.98 U	0.43	0.2 U	0.98 U	0.98 U
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U	0.16 U	0.79 U	0.79 U	0.79 U	0.79 U	0.16 U	0.16 U	0.79 U	0.79 U
Methylene Chloride	5,600	240		1.4 U	1.4 U	1.7 U	1.7 U	1.7 U	1.7 U	1.4 U	1.7	1.7 U	1.7 U
Tetrachloroethene	550	9.4		0.27 U	0.27 U	2.2	3.6	1.4 U	1.4 U	22	0.55	3.7	4.6
trans-1,2-Dichloroethene	85,000	63		0.16 U	0.16 U	0.79 U	0.79 U	0.79 U	0.79 U	0.16 U	0.16 U	0.79 U	0.79 U
Trichloroethene	1,500	0.59		0.21 U	0.24	2	2.6	1.1 U	1.1 U	0.21 U	0.21 U	1.1 U	1.1 U
Vinyl Chloride	290	0.28		0.2 U	0.2 U	0.51 U	0.51 U	2.1	0.51 U	0.2 U	0.2 U	0.51 U	0.51 U

Notes:

Bold indicates sub-slab data > Illinois EPA Remediation Objectives.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection (Sub-Slab = <5')

(b) Indoor Air Remediation Objectives

[ ] = duplicate values

Illinois EPA = Illinois Environmental Protection Agency
J = Estimated concentration
NA = not available
R = The sample results are rejected as unusable. The analyte may or may not be present in the sample.
ug/m3 = micrograms per cubic meter
U = Compound not detected

Table 10
Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)								
			Parcel Tax ID:	801 W. Morris Street - Residential 01813277007					
			Building Construction:	Basement and Crawl Space					
	Residential Soil Gas (<5 feet) (a)	Residential Indoor Air (b)	Location ID: / Area of Building: / Date Collected:	801-IAB Basement 03/09/12	801-IAB Basement 12/04/12	801-IAF 1st Floor 03/09/12	801-IAF 1st Floor 12/04/12	801-SSP-1 Below Bsmt. 03/09/12	801-SSP-1 Below Bsmt. 12/04/12
Volatile Organics Low-Level (ug/m3)									
1,1,1-Trichloroethane	6,600,000	5,200		0.22 U	0.22 U [0.22 U]	0.22 U	0.22 U	2.1	2.7
1,1,2,2-Tetrachloroethane	NA	NA		1.8	0.27 U [0.27 U]	0.27 U	0.27 U	1.4 U	1.4 U
1,1,2-Trichloroethane	170,000,000	21		0.22 U	0.22 U [0.22 U]	0.22 U	0.22 U	1.1 U	1.1 U
1,1-Dichloroethane	690,000	520		0.16 U	0.16 U [0.16 U]	0.16 U	0.16 U	0.81 U	0.81 U
1,1-Dichloroethene	240,000	210		0.16 U	0.16 U [0.16 U]	0.16 U	0.16 U	0.79 U	0.79 U
1,2-Dichloroethane	99	0.09		0.32 U	0.77 [0.89]	0.41	1.9	0.81 U	0.81 U
Carbon Tetrachloride	210	0.41		0.43	0.44 [0.46]	0.42	0.6	1.3 U	1.3 U
Chloroform	110	0.11		0.2 U	0.34 [0.38]	0.2 U	0.87	0.98 U	0.98 U
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U	0.16 U [0.16 U]	0.16 U	0.16 U	0.79 U	0.79 U
Methylene Chloride	5,600	240		1.4 U	1.4 U [1.4 U]	1.4 U	1.4 U	1.7 U	1.7 U
Tetrachloroethene	550	9.4		0.27 U	0.27 U [0.27 U]	0.27 U	0.81	1.4	2.1
trans-1,2-Dichloroethene	85,000	63		0.16 U	0.16 U [0.16 U]	0.16 U	0.16 U	0.79 U	0.79 U
Trichloroethene	1,500	0.59		0.41	0.21 U [0.21 U]	0.21 U	0.21 U	21	37
Vinyl Chloride	290	0.28		0.2 U	0.20 U [0.20 U]	0.2 U	0.2 U	0.51 U	0.51 U

Notes:

Bold indicates sub-slab data > Illinois EPA Remediation Objectives.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection (Sub-Slab = <5')

(b) Indoor Air Remediation Objectives

[ ] = duplicate values

Illinois EPA = Illinois Environmental Protection Agency

J = Estimated concentration

NA = not available

R = The sample results are rejected as unusable. The analyte may or may not be present in the sample.

ug/m3 = micrograms per cubic meter

U = Compound not detected

Table 10
Residential Indoor Air, Sub-Slab Soil Gas, and Ambient Air Sample Results
GE Morrison Facility
Morrison, Illinois

	Remediation Objectives (ug/m3)		Parcel Tax ID:	810 W Park Street - Residential				Ambient Air						
			Parcel Tax ID:	0813277009										
			Building Construction:	Slab on Grade										
	Residential Soil Gas (<5 feet) (a)	Residential Indoor Air (b)	Location ID:	810-SG-1	810-SG-2	810-IAF-1	810-SSP-1	AMB-1	AMB-1	AMB	AMB	AMB-1	AMB-2	AMB-1
			Area of Building:	Exterior Soil Gas	Exterior Soil Gas	1st Floor	Below 1st Floor							
			Date Collected:	12/09/13	12/09/13	12/10/13	12/11/13	03/07/12	03/09/12	03/13/12	03/14/12	12/04/12	12/06/12	12/10/13
Volatile Organics Low-Level (ug/m3)														
1,1,1-Trichloroethane	6,600,000	5,200		1.1 U	1.1 U	1.1 U [1.1 U]	1.1 U [1.1 U]	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-Tetrachloroethane	NA	NA		0.27 U	1.7	0.27 U [0.27 U]	0.27 U [0.27 U]	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2-Trichloroethane	170,000,000	21		0.22 U	0.22 U	0.22 U [0.22 U]	0.22 U [0.22 U]	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,1-Dichloroethane	690,000	520		0.16 U	0.16 U	0.16 U [0.16 U]	0.16 U [0.16 U]	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,1-Dichloroethene	240,000	210		0.16 U	0.16 U	0.16 U [0.16 U]	0.16 U [0.16 U]	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichloroethane	99	0.09		0.32 U	0.32 U	0.32 U [0.32 U]	0.32 U [0.32 U]	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Carbon Tetrachloride	210	0.41		1.3 U	1.3 U	0.37 [0.42]	1.3 U [1.3 U]	0.4	0.4	0.41	0.37	0.51	0.47	0.38
Chloroform	110	0.11		0.2 U	0.2 U	0.20 U [0.20 U]	0.20 U [0.20 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	1,100,000,000	NA		0.16 U	0.16 U	0.16 U [0.17]	0.16 U [0.17]	0.16 U	0.16 U	0.3	0.16 U	0.16 U	0.16 U	0.16 U
Methylene Chloride	5,600	240		1.7 U	1.7 U	1.4 U [1.4 U]	1.4 U [1.4 U]	1.4 U	1.4 U	2.6	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	550	9.4		0.27 U	0.27 U	0.27 U [0.27 U]	0.27 U [0.27 U]	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
trans-1,2-Dichloroethene	85,000	63		0.16 U	0.16 U	0.16 U [0.16 U]	0.16 U [0.16 U]	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	1,500	0.59		0.21 U	0.21 U	2.1 U [2.1 U]	2.1 U [2.1 U]	0.31	0.21 U	0.39	0.21 U	0.21 U	0.21 U	0.21 U
Vinyl Chloride	290	0.28		0.2 U	0.2 U	0.20 U [0.20 U]	0.20 U [0.20 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Notes:

Bold indicates sub-slab data > Illinois EPA Remediation Objectives.

Shading indicates a concentration above the Remediation Objective

(a) Illinois EPA Section 742, Appendix B, Table H - Tier 1 Groundwater Remediation Objectives for the Indoor Inhalation Exposure Route - Diffusion and Advection (Sub-Slab = <5')

(b) Indoor Air Remediation Objectives

[ ] = duplicate values

Illinois EPA = Illinois Environmental Protection Agency

J = Estimated concentration

NA = not available

R = The sample results are rejected as unusable. The analyte may or may not be present in the sample.

ug/m3 = micrograms per cubic meter

U = Compound not detected

Exhibit 11

**Waste Disposal and Chemical Purchase Matrices
Included with GE's Response to the U.S. EPA's 104(e) Information Request
(dated August 21, 1987)**

3/19/87

G.E. MORRISON, IL
WASTE DISPOSAL MATRIX
AMOUNTS IN POUNDS

WASTE DESCRIPTION	DESTINATION	ADDRESS	TSD METHOD	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
HAZARDOUS Wastewater Treatment Sludge	Whiteside Co. Landfi U.S. Ecology Browning Ferris Ind. E.S.L. Inc. Peoria Disposal Co. WRC Processing	Morrison, IL Sheffield, IL Rockford, IL Elwood, IL Peoria, IL Pottsville, PA	Landfill Landfill Landfill Landfill Landfill Reclaim	Unknown	Unknown	Unknown	125895	36656	45285	82030	90930	12765	94080	91823	31500 33936	63630 42428	86961	112413 29894	82719	94000
Waste 1,1,1-Trichloroethane	Safety Kleen Safety Kleen WRR	Elgin, IL Hebron, OH Eau Claire, WI	Reclaim Reclaim Reclaim												85428	61960 12960 34560	142102 34560	72350	106142	64260
Hazardous Waste Liquid, N.O.S. (FREON)	Safety Kleen WRR	Elgin, IL Eau Clair, WI	Reclaim Reclaim													24235	25126 12249	31899	34440	26056
Waste Ethyl Alcohol	LWD WRR	Calvert City, KY Eau Clair, WI	Incinerate Reclaim												9724	10676	5236 2618	2788	4046	2244
Waste Paint-Related Material	LWD	Calvert City, KY	Incinerate																6003	1436
Waste Mercury, Metallic	Whiteside Co. Landfi U.S. Ecology CWM	Morrison, IL Sheffield, IL Emelle, AL	Landfill Landfill Landfill	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	280	0	240	265	265	370	0	0
Waste Trichloroethylene	Safety Kleen Whiteside Co. Landfi	Elgin, IL Morrison, IL	Reclaim Landfill	Unknown	Unknown	Unknown	Unknown												3282	
Waste Solvent N.O.S. (TCEA, FREON)	Whiteside Co. Landfi U.S. Ecology	Morrison, IL Sheffield, IL	Landfill Landfill	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	140770	119988						
NON-HAZARDOUS Waste Oil N.O.S.	Whiteside Co. Landfi G.E. N.O.R.C.O.	Morrison, IL Morrison, IL McCook, IL	Landfill Fuel Burn Reclaim	Unknown	Unknown	Unknown	90750	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	178975	28500
Incinerator Ashes	Whiteside Co. Landfi	Morrison, IL	Landfill	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	117221	250881	295598	288311	153007
Plastic Scrap	Whiteside Co. Landfi	Morrison, IL	Landfill	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	677241	1293309	1266782	1238361	655046

NOTE: "Unknown" means waste disposed but quantity is not known. Blank spaces indicate no waste disposed.
To the best of our knowledge this information is true and correct.

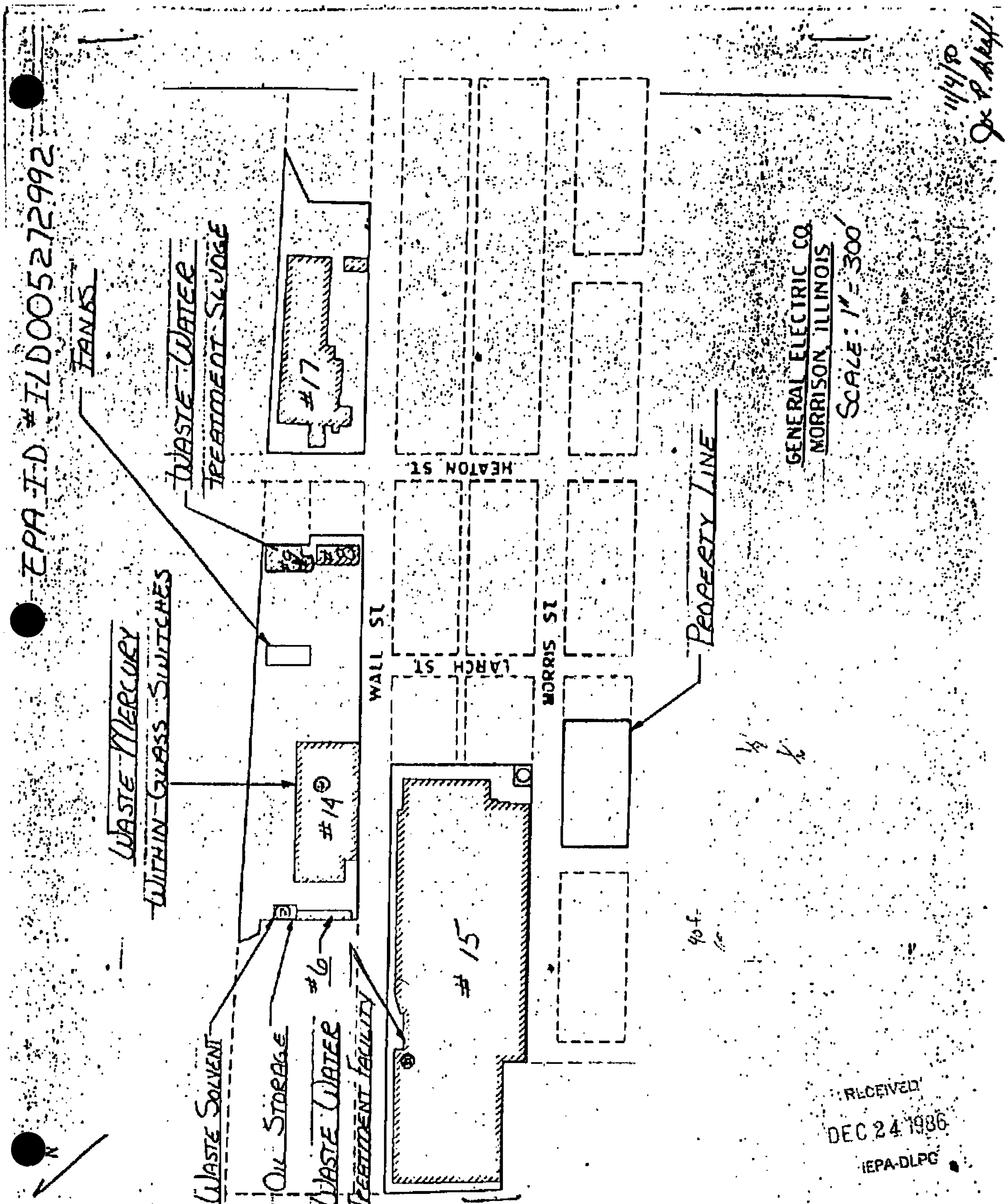
8/18/87

G.E. MORRISON, IL
CHEMICAL PURCHASE MATRIX

CHEMICAL	CODE#	VENDOR	UNITS	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Plating Chemicals	1	Dow Chemical	lbs	0	0	0	200	600	500	0	0	0	0	0	0	0	0	0
		McKesson Chemical	lbs	39855	9400	2344	0	1700	4000	0	0	0	0	0	0	0	0	0
		Oxford Chemical	gal	0	0	0	0	14	0	209	0	0	0	0	0	0	0	0
		Todco Chemical	gal	0	0	0	0	0	720	440	225	275	5	0	0	0	0	0
		Viking Chemical	lbs	144926	257709	187065	255816	360605	199379	275313	291587	285270	126846	230103	361711	85836	419551	216190
		Total		184781	267109	189409	256016	362919	204599	275962	291812	285545	126851	230103	361711	85836	419551	216190
1,1,1-Trichloroethane	2	Dow Chemical	lbs	228500	159880	240360	286390	319500	280270	261830	120330							
		McKesson Chemical	lbs	47610														
		PPG	lbs								87460	270480	91040					
		Vulcan Chemical	lbs											42750	399900	271100	358800	91100
		Total		276190	159880	240360	286390	319500	280270	261830	207790	270480	91040	42750	399900	271100	358800	91100
FREON TF and TMS	3	McKesson Chemical	lbs	19550	14630	36720	25950	41130	30570	27930	13800	31050	63270	107570	149430	155500	253350	144550
Ethyl Alcohol	4	Barton Solvents	gal								165	5775	3300	4675	2200	3850	2750	1650
		McKesson Chemical	gal	6156	7506	4860	6480	4860	6750	7020	1620	1080						
		Viking Chemical	gal		220													
		Total		6156	7726	4860	6480	4860	6750	7020	1785	6855	3300	4675	2200	3850	2750	1650
Paint Related Material	5	Viking Chemical	gal	497	497	242	414	495	331	248	497		720	720	1000		1245	1440
		Decm Chemical	gal		36	25												
		Barton Solvents	gal	8233	3910	1127	2240	165	371	55			10	55	80	15	15	55
		Total		8730	4443	1394	2654	660	702	303	497	.0	730	775	1160	15	1260	1495
Trichloroethylene	7	Dow Chemical	lbs	216980	25200													
Perchloroethylene	8	McKesson Chemical	lbs		6300													
		Viking Chemical	lbs						1400	7000	700							
		Total		.0	6300	.0	.0	0	1400	7000	700	-0	-0	.0	.0	.0	.0	-0
Oils	9	Viking Chemical	gal		110	3575	17710	24310	4095	1295	530	470	110	110	660	20	5307	1555
		Witco	gal						275	110			165	625	605		440	
		Sonneborn	gal	12762	8745	5940					110							
		Rock Valley Oil Co.	gal	3510	4950	6400	7590	10450	21285	33445	5775	15510	21560	23565	23460	5365	8440	6234
		McKesson Chemical	gal	1100														
		Total		17372	13805	13915	25300	34760	25655	35050	6415	15980	21835	24300	24733	5385	14187	7791

Exhibit 12

Map of GE Plant
Showing Building #15 (GE-1) and Building #14


EPA I-D #ILD005272992
TANKS
WASTE WATER TREATMENT SLUDGE
#17
HEATON ST
WALL ST
LARCH ST
MORRIS ST
WASTE MERCURY WITHIN GLASS SWITCHES
#14
#15
#6
WASTE SOLVENT
OIL STORAGE
WASTE WATER TREATMENT FACILITY
PROPERTY LINE
GENERAL ELECTRIC CO
MORRISON, ILLINOIS
SCALE: 1" = 300'
11/4/80
N
RECEIVED
DEC 24 1986
IEPA-DLPC